Electrical Merchandising

The Monthly Magazine of the Electrical Trade

March 1917

In This Issue:

20c a Copy

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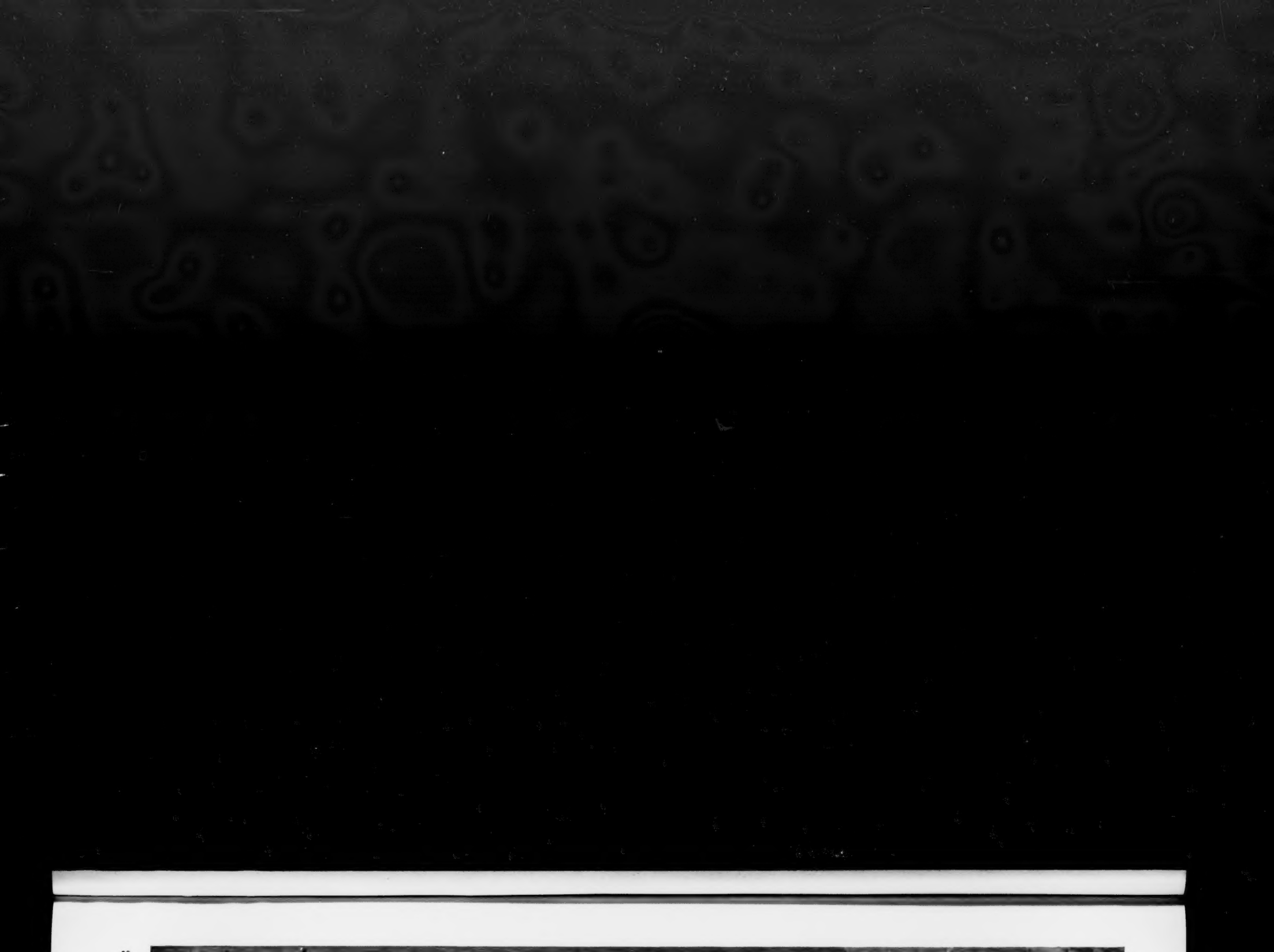
Electric Light finds its welcome way into practically every new building.
The modern magic maker—electric current—is always just outside waiting to be admitted.
And old walls, however ancient, surely ought not to be a barrier to the bright, white light of Edison MAZDA Lamps.
Let it in! Wire the old house. Wire the old place of business. Wire the erstwhile stable where you keep your Packard. Wire the vacant house or store you are trying to rent.
Electric wiring means much, but it doesn't cost much.* In addition to modern, clean, cool, matchless lighting, it opens the way, for many of those other electrical conveniences and comforts which were first luxuries but now economies.
Edison MAZDA Lamps, because of their threefold economy make the most of the electric current you can now get so reasonably, they make electric current go three times as far, for they give three times as much light as the old-style carbon lamps at no additional cost for current.
In their steady brilliance Edison MAZDA Lamps typify the public service being rendered by the General Electric Company in its ceaseless efforts to make electricity the indispensable servant of every modern man, woman and child.
* Ask your lighting company.
EDISON LAMP WORKS
of General Electric Company
General Offices, Harrison, N. J.
Agencies Everywhere
EDISON MAZDA LAMPS
Made in U.S.A. and backed by MAZDA Service
This is advertisement #6678 of the Spring "housewiring" series— now appearing in the leading magazines.



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JAMES H. MCGRAW, President
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Electrical Merchandising

THE MONTHLY MAGAZINE OF THE ELECTRICAL TRADE

F. M. FEIKER, Editorial Director O. H. CALDWELL, Editor

Of This Number of ELECTRICAL MERCHANDISING 11,000 Copies Are Issued

Issued on the Fifteenth of Each Month. Entered at New York Post-Office as Second Class matter. Subscription Rates in United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines, $2.00 per year. Canada, $2.50. Elsewhere, $3.00. Single copy, 20 cents. When change of address is requested both old and new addresses must be given. Notice must be received by the fifth of the month before the change takes place.

Adapting Ideas From Other Lines

THERE is money in maintenance. Large hotels do not buy glassware: they contract with a glass concern which keeps them stocked at so much per month regardless of the amount of breakage. Taxicab companies in the big cities do not buy tires: they contract with a tire dealer to keep their cars equipped at a set price per car per year, regardless of punctures and blowouts. Now comes the story of an electrical contractor who is getting rich by keeping the motors of local factories in order on a monthly maintenance basis, as told on page 120.

The idea is not new. The glass man borrowed it from somewhere; the taxi-tire man borrowed it from him, and so it goes. Originality is almost an unknown thing. A clever business man is one who adapts borrowed ideas successfully—and who does it first in his locality.

The chief mission of ELECTRICAL MERCHANDISING is to supply adaptable ideas; our chief difficulty is to teach—and induce—our readers to do the borrowing and adapting.

"Merchandising's" New Business Manager

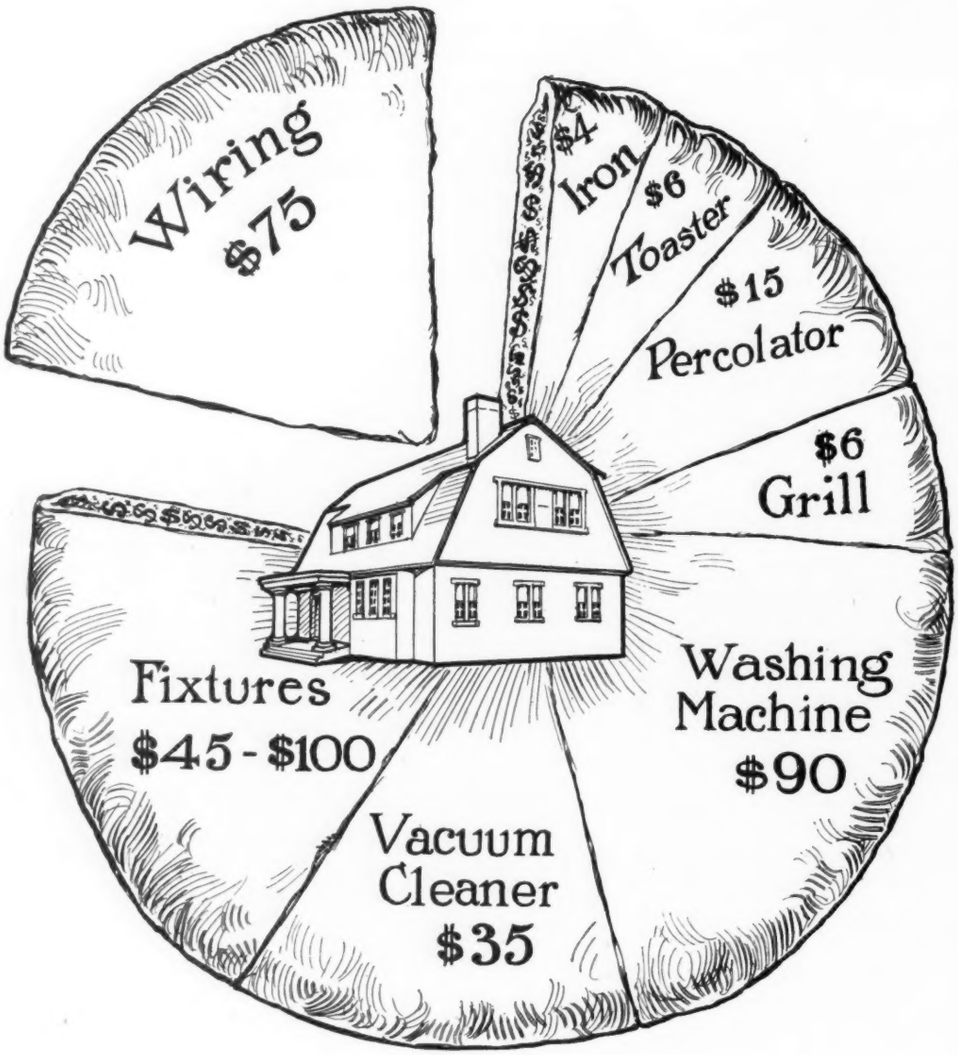
ONE of the biggest families in this electrical industry of ours is the family of contractors. They are the men who are putting wiring into houses so that electric service can move up and get acquainted. They are the folks who come into closest touch with the big public which the whole industry serves. They are the men who, we believe, will be the electrical merchants of the coming years.

GEORGE H. DUFFIELD

And among all the members of the contractor-dealer family no man is better known—or liked—than George H. Duffield, who for the last four years has been secretary of the National Electrical Contractors' Association and in charge of its official journal.

Duffield is just thirty-six; a graduate of Drexel Institute, Philadelphia, and a member of the Loyal Order of Good Old Scouts. As a government engineer he built the first electrically operated river lock in the U. S. A. at Rock Island, Ill., and later went into electrical manufacturing work in the same town, resigning after twelve months to join the N. E. C. A. field staff.

And now Duffield is getting ready to join ELECTRICAL MERCHANDISING'S family, April 1, as business manager, and to help serve his contractor friends and the electrical selling trade in an even more broadly useful way. We welcome a man of his personality and achievements and know that his many friends will be interested in learning of his new move.



IT is estimated by the Society for Electrical Development that 50,000 already-built houses will be equipped for electric service as a result of the "Wire-Your-Home-Time" campaign—April 1 to May 15.

These 50,000 newly-wired homes will immediately become "live" prospects for fixtures, vacuum cleaners, washing machines, irons, percolators, toasters, curling-iron heaters, and the vast miscellany of electrical home conveniences which may be lighted or heated or operated on central station current.

The electrical merchandise—exclusive of fixtures and wiring—which can and should be sold in the moderately well-to-do home amounts approximately to $150 worth, which means that "Wire-Your-Home-Time" will not only bring 50,000 wiring jobs to the contractors and 50,000 new residential customers to the central stations, but that a market for $7,500,000 worth of electrical appliances for the electrical merchant will be created in six weeks.

Are you, Mr. Contractor and Mr. Merchant, are you prepared to secure this business? Are your shops invitingly arranged to attract these new customers? Are your stocks complete to satisfy this new demand? Are your salespeople trained and competent to turn these new and eager inquiries into actual orders?

The big thing about "Wire-Your-Home-Time" is not the wiring contracts—these amount to but 25 per cent or less of the business that will accrue. The big thing is the merchandising opportunity which follows in the wake of the wireman.

And so we ask you, why be satisfied with the 25 per cent? Why not plan—and get!—the whole luscious pie?

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

With which is incorporated ELECTRICAL MERCHANDISE

Volume 17 March, 1917 Number 3

Why Not the Whole Pie?

EVERY residence that is wired for electric service is a "live" prospect for not less than $150 worth of electrical merchandise, exclusive of fixtures and wiring. The amount has been variously estimated, but $150 seems a reasonable and getable sum.

Of course, few homes have this quantity of labor-saving electrical equipment; in fact, homes with more than $50 worth are so exceptional as to provoke comment, and it is probable that $15 would be a high average. So it must be concluded that we, as an industry, are getting about 10 per cent of the business which is easily within reach.

The answer, we believe, is because not enough men are trying seriously to get all the business they can. Our business is very spotty. Here and there is a man who has found that he can get business at a profit. But as a whole the contractor is so intent upon a $75 wiring job that he cannot visualize the opportunity to sell $50 worth of fixtures and three times that amount in appliances.

The central station is so intent upon the few kilowatts consumed in lighting and flatirons that it cannot visualize the enormous consumption which would follow if homes were truly and completely electrified.

The manufacturer is so intent upon winning single orders from competitors that he cannot visualize the possibility of developing to the point where there would be more orders than he and all of his competitors together could handle.

There is no difference between us and men in other businesses—except that we are starting with a big undeveloped market. *We need to make our stores salesrooms and not stockrooms;* to write advertising copy that gets business; to get up a good prospect list and mail just enough; to know the *cost of doing business and how to figure profits.*

There are in this country probably 5,000,000 homes wired for electricity. On the most conservative estimate this means an immediate market for $250,000,000 worth of electrical merchandise, an ultimate market for a full billion. In addition, probably 85 per cent of all new residences are wired as built, and the aggressive campaigns of central stations and contractors in the older communities each year are adding thousands of already-built houses to the total.

With such possibilities for immediate sales, the electrical industry can ill afford to handicap itself by lack of vision—by deliberate short-sightedness, by unprofitable selfishness, by illiberal counsels. What we all need, what we all should strive for, is the broad vision to see clearly, to think straight, and to act courageously in the development of a waiting market.

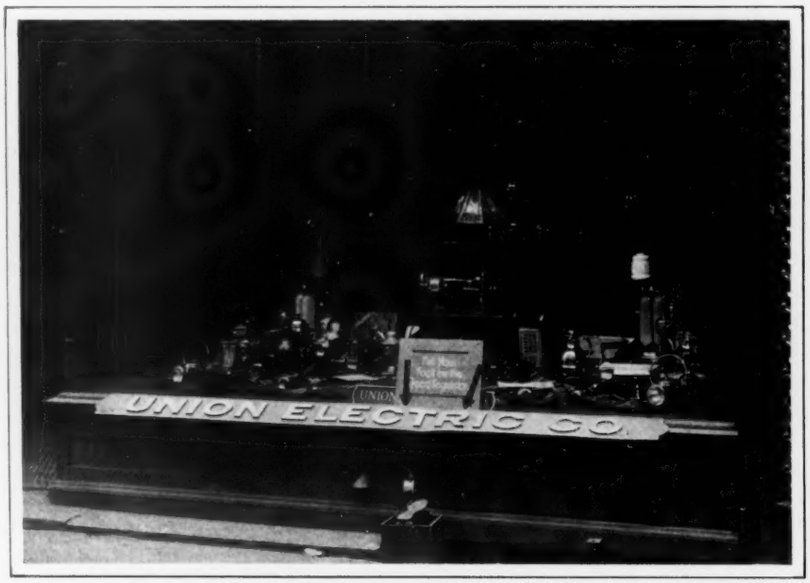
A STORE WITH A YEAR-ROUND PLAN

How a Pittsburgh Retailer Has Built Up a Round-the-Calendar Campaign Through Featuring Two Labor-Saving Appliances

By EARL E. WHITEHORNE

WE BELIEVE that this article will interest you principally because it refutes the too commonly accepted idea that selling electrical merchandise is just the same old game in every city—that it is only a matter of keeping store, with small chance for variety. For in this Pittsburgh store they ring a little change that seems to bring a lot of extra profit, and it's a very simple bit of enterprise that anyone can readily apply in his own town. It shows that business need not stand still waiting, just because there is no big appropriation handy for a campaign fund or a numerous staff available to whoop-up everything at once. It points a finger right at you—and says: "Get busy and keep busy on at least one line. The Pittsburgh plan will do if you can't think up something that will suit you better." Just read it over and reflect.—THE EDITORS.

I WAS walking down Fifth Avenue in Pittsburgh the other day when I noticed a man coming toward me. He was looking into the shop windows as he walked, just as we all do, but suddenly he stopped and stared intently. Then he walked up to a window and put his foot on top of a little black box that stood on the sidewalk. In a minute he started on. Then he stepped back and took another look and ducked into the store. It seemed a curious performance, and I took a look myself and saw—a window full of electrical appliances — several handsome portable lamps, some flatirons, a grill, a toaster and some other things. It was a general display, very attractively arranged, and in the center stood a sewing machine—one of the new Western Electric portable units—with a sign in front of it that said: "Press the controller with your foot and see just how it works." And there out on the sidewalk lay this little black box with the controller pedal mounted on top. I watched the people stop and try it. There were a lot of them that went inside to ask some question—and so did I.



It was an attractively arranged display and in the center stood a portable electric sewing machine. Outside, the controller pedal was mounted on a little black box, and people kept stopping to work it.

It was the downtown store of the Union Electric Company, where appliances and supplies are sold at retail to the public, and as the pictures show, it is a regular store both in equipment and appearance. Down one wall are shelves on which are carried all the varieties of sockets, plugs and switches, lamp cord, bushings, shades and lamps, that the householder is apt to buy for making repairs, and this is all sold across a counter; while on the other side are glass-doored cases from the floor up, in which the small-appliance stock is kept on display. In the front are comfortable chairs and a table on which appliances can be demonstrated, and in the rear is a space devoted to cleaners, workers and ironers, and behind that is the office. I went back and found the manager, C. W. Thompson, and being good natured he told me all about the experience of his company in the merchandising of electric devices to the homes of Pittsburgh. It is interesting because the company has followed out a definite plan quite different from the ordinary.

The Union Electric store has been established in its very favorable location for six years and throughout this time has been pushing two appliances — the washing machine and the vacuum cleaner. The advertising and the personal selling campaign have been consistently restricted to these two features, except for a month in summer when the fan campaign is in full swing and again in winter during the weeks of Christmas shopping. The reason is this —and it is worth considering.

As Mr. Thompson put it, the washer and the cleaner are tangible labor-saving machines that can be recommended and argued on a dollar and cents basis that puts over the idea of the economy and effectiveness of electric appliances in the home, and opens up the opportunity for the sales of all the other smaller devices. So he drives these two headliners as an opening wedge, and the ads that the Union Electric Company store runs in the Pittsburgh and suburban newspapers

are, therefore, washing-machine and sweeper ads, though other appliances are sometimes listed as a secondary subject. In all this advertising the effort is made—and quite successfully—to get responses to the ads over the telephone, and all inquiries are followed up by two salesmen who do nothing but outside selling. One is a washer expert and the other a specialist on cleaners, but when they sell the washer or the cleaner, then they follow up for other business, and they follow out this system all the year around. That in a nutshell is the selling plan that has built up a very profitable retail business for the Union Electric store—that and a very liberal easy-payment offer. The store does not feature any other appliance sales and yet it sells the other appliances continually.

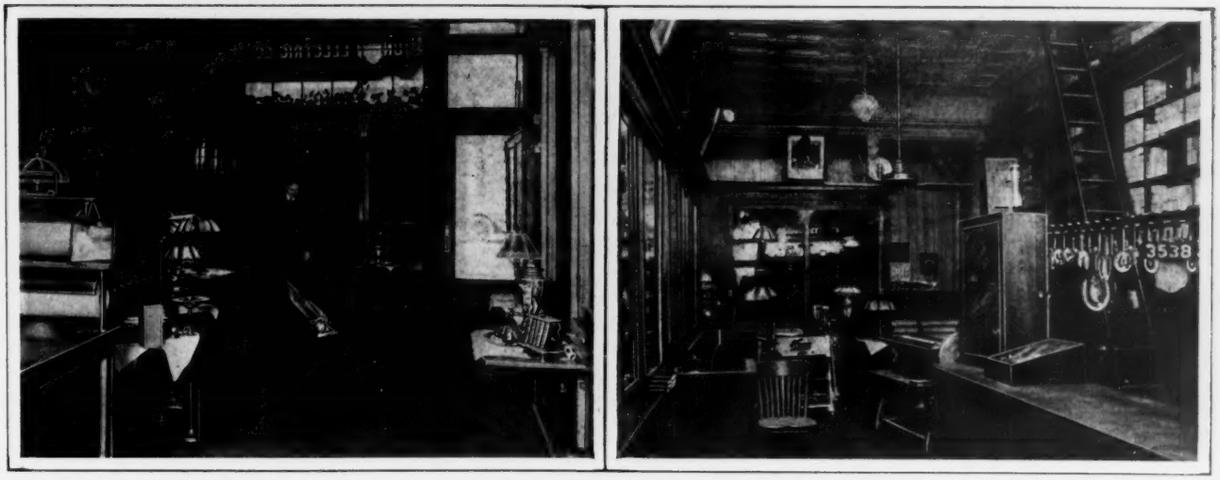
PUBLICITY AND FIELD WORK

As I have said the company advertises cleaners and washers in the newspapers, and usually occupies a space of about two columns wide by 6 in. deep, with now and then half-page displays at seasons when these two appliances have particular appeal. The ads appear in four weekly papers—the East Liberty *Tribune*, the *Jewish Criterion*, the Pittsburgh *Index* and the *Bulletin*—and also run in all the evening papers in rotation, so that there is a message in one city paper every day. These ads all ask the reader to call up the store by telephone and ask for a demonstration, and it has proved a most productive plan. More than 8 per cent of all the sales are traced to these phone inquiries and the salesmen are busy every day in following up these prospects. It keeps them going practically all the time, but when there is an afternoon free they ring doorbells and follow out a canvass schedule, which gradually works through selected residence streets.

The newspaper ads all ask the reader to telephone their inquiries to the office, and the salesmen are kept busy on the resulting leads.

When the cleaner salesman calls he takes a machine right with him and leaves it for a few days' trial, if possible. When the washer salesman calls, however, his purpose is to arrange to have a washer sent out to the house on trial for ten days. The terms they offer are: vacuum cleaners, $2.95 down and easy payments of $3 monthly; on washing machines, $5 down and $10 each month, and on these terms it usually is not very difficult to arrange a trial. In fact, since last July, when the easy-payment offer on washers was instituted, about seventy-five machines have gone out on trial and none have come back, which represents about three-quarters of all the sales within this period, the balance having been cash transactions. In the case of vacuum cleaners, naturally a larger percentage are returned after the five-day trial, for there are five or six other cleaners that are sold in Pittsburgh on about the same terms, and about 20 per cent of the trial machines come back, though only about 80 per cent of the total sales are taken on trial. In all, some 400-odd cleaners have been sold since last spring when the free-trial offer was begun.

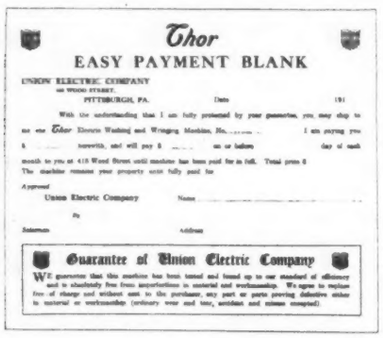
The two outside selling men do the demonstrating themselves. They follow up the phone calls and thoroughly demonstrate the machines at the house of the prospect. When they have made the sale they call back to see if everything is all right, and then they begin to talk lamps and the small devices, and it has been found that this system is most effective. These men work primarily for washer and cleaner business, but the other appliances trail along and find their market on the follow-up calls. Many seeds are sown in these after-calls and the customer comes into the store some day and asks for the salesman, and is shown the stock, but there are a large percentage of direct sales as well. For instance, the other day the salesman called about a cleaner. He sold it and then described the washer, advocating it as the next step in the equipment of



In the front are comfortable chairs and a table on which appliances can be demonstrated. In the rear is a space devoted to cleaners, washers and irons; back of that is the office.

that home. But while there he found out that the husband was at home with the grippe and chills, and he sold him a heat pad at once. Such leads develop continually.

The competition in the sale of cleaners has become very keen in Pittsburgh, and it is quite the usual thing for women who wish to buy to have three or four machines sent home on



Thor

EASY PAYMENT BLANK

UNION ELECTRIC COMPANY
418 WOOD STREET,
PITTSBURGH, PA. Date 191

With the understanding that I am fully protected by your guarantee, you may ship to me one Thor Electric Washing and Wringing Machine, No. ..... I am paying you $ ..... herewith, and will pay $ ..... on or before ..... day of each month to you at 418 Wood Street until machine has been paid for in full. Total price $ ..... The machine remains your property until fully paid for.

Approved
Union Electric Company Name .....
By
Salesman Address

Guarantee of Union Electric Company

WE guarantee that this machine has been tested and found up to our standard of efficiency and is absolutely free from imperfections in material and workmanship. We agree to replace free of charge and without cost to the purchaser, any part or parts proving defective either in material or workmanship (ordinary wear and tear, accident and misuse excepted).

The sale of goods has increased ten times since the adoption of the easy payment plan.

trial. Each one will probably be demonstrated and the sale will depend pretty much on the way the salesman makes his machine show up.

Mr. Thompson has developed a very good system for supporting the outside work. A special telephone, not listed in the book, is used by the men for calling up prospects and making definite appointments for demonstrating the washer or the cleaner. At any time when they have no engagements, one or the other of the outside men will use the phone, calling up the housewives between 9.30 and 11.30 a. m. and from 4 to 5.30 in the afternoon, and they are very successful. By using this special phone the regular wire is not blocked to incoming messages, and during the hours when residence calls cannot be made, the men take care of the prospect cards. In short, the whole business of digging out new customers is put up to them.

I asked Mr. Thompson particularly about their collection situation, and apparently they are having almost no trouble in getting in the easy-payment installments. Their contract form is good and the salesmen try to impress each purchaser with the fact that the terms must be lived up to. On the first of the month after the sale, they send out a statement, which the customer mails or brings to the store each month for the credit entry, and this brings an opportunity to sell them many other things. If the customer forgets to pay an installment, a personal letter is written. If there is no response to this the man who made the sale drops in when he is in the neighborhood again and finds out what's the matter, but this has only happened about six times so far. It is the easy payment that sells the goods, without a question, for these same men were only selling about one-tenth as many washers and cleaners before they had the easy terms to offer.

I said to Thompson: "What do you find the argument that sells the most washing machines and starts your customers on the road to the complete equipment of their homes with electric labor-saving machinery?"

He said: "I can answer that very definitely. We always point out this —that a laundress costs $2 per week or almost $10 a month, and this amount is already figured into the housekeeper's allowance. Well, on our terms of $10 a month, they simply pay that same amount to us, and it soon buys the washers. Then they own it and this item of expense stops for ever, and in the meantime the clothes are better washed and more quickly done."

Certainly that puts the case in an interesting and a convincing light. The answer is—it gets the business. In fact, this washing machine salesman is a particularly hard worker, and is building up his income fast, by telephoning from his home in the evenings, and putting this problem in domestic economy straight up to the hus-

The newspaper ads are run in rotation so that there is a message in one city paper every day.

bands when they have had their dinners and are feeling better.

In the store itself the Union Company is following the usual methods of good merchandising. The arrangement of the goods is attractive. The store is well furnished and appealing. The windows are redressed each week.

Down one wall are shelves which carry a variety of electrical goods for the householder, such as sockets, cords, plugs, etc. Small appliances are displayed on the other side in glass cases.

Every effort is put forth to make a friend of every customer by good service and continuous attention. If a man or woman comes in and says that the lamp bought last week is no good, they take a chance and give a new one without question. They do all they can to keep the customer coming for more and as a result the supply business—the wiring materials sold at retail to the public—has actually grown to be one-half the total volume of sales.

There is one condition that Mr. Thompson says has hampered the development of their merchandising business to a considerable degree—the competition of monthly cut price sales which are featured by the local central station in its own electric shop. These sales have been going on now for two years and each month the Union Electric Company finds that its sales of the device which is then being offered as a bargain in the electric shop fall off, for naturally they cannot follow suit and sell the article below cost. Therefore, the market for that one appliance is temporarily demoralized, and when it happens to be the washing machine or vacuum cleaner—the very backbone of the Union plan of campaign—it works a hardship that is costly. On the occasion of a recent cut-price Mazda lamp sale in the electric shop, the Union lamp sales increased 10 per cent, but this was only because the sale attracted many buyers who came in expecting to buy anywhere at the same price. The cost of the article being small, good salesmanship turned the greater part of these inquiries into sales at list, but this is not the case with larger and more expensive appliances. Were it not for this situation, therefore, the record of the Union Electric Company would probably show up considerably better.

It seems to me, however, that the two-feature round-the-calendar campaign plan that Mr. Thompson is following is unique and interesting. He campaigns two big leaders which he can put forth as a business proposition, and for the sale of the other appliances relies on following calls upon his customers, and undoubtedly this scheme would prove the very thing in many other cities. For the Pittsburgh people are just people like your own, and the sales in Pittsburgh are not made to the rich or to the poor, but to the regular homes of regular average folk, the kind that populate all towns. Surely the idea has proved profitable as Mr. Thompson has applied it and is worth consideration.

WHAT THE TRADE ACCEPTANCE OFFERS

By R. H. TREMAN
Deputy Governor Federal Reserve Bank, New York City

THERE IS NO PROBLEM before us all to-day as pressing and important as the question of how to collect the money and pay the bills. The contractor continually suffers because his customers keep him waiting. This makes him slow pay to the jobber, which in its turn embarrasses the jobber in his buying from the manufacturer.

There is no reader of ELECTRICAL MERCHANDISING who is not vitally concerned in this matter and we urge you to give this article a very careful reading. But that is not enough. When you have read it, go to your bank and talk to the officials about it. Then take it up with the jobbers and the manufacturers you buy from. For the best thing you can do to help the movement is to apply it.—THE EDITORS.

THE editor of ELECTRICAL MERCHANDISING tells me that there is a rapidly growing interest in the electrical industry in the trade acceptance plan of financing book accounts, and has asked me to outline briefly just what a trade acceptance is and how it works and to what extent this plan can be profitably used by manufacturers, jobbers and retailers of electrical appliances. It is a matter of extreme importance to all electrical men no less than to the business men of every other industry. It brings an opportunity to solve some of their most troublesome financial problems. And I am glad to comment here on the issue because I feel that it is the duty of every American business man to investigate this situation now and use his influence as best he can to bring about a thorough understanding of the trade acceptance and its general adoption.

It is difficult in a period like the present, when credit can be easily secured at low rates and banks are seeking loans, to properly appreciate the importance of providing ways and means for making credit more easily available at reasonable rates when we shall have entered a period of restricted and contracted credits, with a certainty of higher rates for loans. One of the main objects of the introduction of trade acceptances in place of open book accounts, so generally used now, is to make open book accounts—that is, "dead" capital—available as "live" capital, by putting book accounts into trade acceptances and making the credit represented by the book account immediately available for discount at a bank and thence, through a member bank, with the Federal Reserve Bank.

A "trade acceptance" is really just a "time draft" drawn by the seller of merchandise on the buyer for the purchase price of the goods and accepted by the buyer. The buyer "accepts" the draft by writing across the face of the draft "*Accepted, payable at First National Bank*" and signs his name and designates the date of payment. These trade acceptances are used in this way.

The seller renders a monthly statement covering purchases made during the month and forwards with this monthly statement a trade acceptance or time draft form duly filled out for the amount represented by the purchase. Upon receipt of the statement and draft the buyer of the goods has the option of either paying the bill at once and deducting the cash discount (or premium) allowed in ten days, or he may "accept" the trade acceptance, designating the bank or place where it is payable and the date when he agrees to pay it; and having

signed it, he returns it to the seller of the goods, thus closing the transaction.

The manufacturer or jobber receiving this trade acceptance may hold it until a short time before it becomes due, when he will forward it for collection through his bank; or if soon after receiving the trade acceptance duly signed, the jobber or manufacturer finds himself in need of funds he may take this and other trade acceptances to his bank for discount, thus immediately converting into available cash assets this account which otherwise would have to run sixty, ninety or perhaps 120 days. This ability to convert what would otherwise remain non-convertible credits into a live asset should be sufficient justification alone for the adoption of the trade acceptance plan.

THE BANKER AND THE TRADE ACCEPTANCE

To the banker, these acceptances are desirable forms of commercial paper because they represent *two names*, whereas the ordinary promissory note generally carries but *one name*. The bank, if it finds itself in need of additional funds to loan in its locality, can rediscount these trade acceptances with the Federal Reserve Bank of its district and secure a rate from one-half to 1 per cent lower than if it rediscounted promissory notes. Therefore, this alone should secure for the jobber or the manufacturer very attractive rates for the discount of such trade acceptances which he may receive from his customers and negotiate at his own bank.

FOR THE MANUFACTURER AND THE JOBBER

For the manufacturer and jobber, the trade acceptance plan has many advantages. It provides for payment, by the retailer, of his indebtedness at a *definite period* instead of carrying these customers in open book accounts which run—as investigation shows they do run—from thirty to ninety days *beyond the date when they are actually due*, thus forcing the jobber and the manufacturer to actually provide banking capital for his delinquent retail buyers. And there are many other benefits to the seller, such as the preventing of the abuse of taking discounts after the proper time, the reducing of the expenses of collection, the obviating of the need of selling book accounts or borrowing at high rates to furnish capital for long time credits. It would also be the means of reducing the number of failures in business caused by a lack of capital and poor credit system, because it would tend to establish short credits and payments at fixed periods as standard business practice.

But a decided benefit comes to the buyers of goods. Whoever buys on open account pays for the privilege much more than he realizes, for the difference between what an open account will buy and what a trade acceptance will buy will pay a fair dividend on capital invested in a business, since sellers who are called upon to

R. H. TREMAN
Deputy Governor Federal Reserve Bank, New York

furnish capital for buyers to do business on must calculate their prices so that they will adequately compensate for interest losses on accounts overextended. By using the trade acceptance plan, however, and meeting his obligations at maturity, the buyer will have a better credit standing with the seller, thereby securing the best prices, all of which would tend to influence him not to overbuy and would put him on practically the same basis as the man who discounted his bills for cash.

To sign an acceptance differs from signing a check only in that it does not presuppose funds actually in bank at the moment to meet it, but promises payment at maturity and no extension or renewal can be expected. If an extension of credit becomes necessary such renewal can be negotiated in the form of a promissory note on interest.

CARE IN EXTENSION OF CREDITS

Again, this system would teach the retail buyer to be more careful in the extension of credits to his own customers and to insist upon shorter credits and their payment when the obligation becomes due. In many instances at present retail distributers and contractors, while selling their output on an understood credit of from thirty to ninety days, very often allow their customers to carry the credit for double the time agreed upon, all of which serves to tie up the capital of the retailer or contractor and make him hard up and not prompt in paying his own bills.

Our national business vice is attempting to do business on inadequate capital, but they who sign acceptances must trade on their own capital and not that of their creditors. And as they in turn will call upon their own customers to meet their payments promptly, the *entire* system will gradually adjust itself quite automatically.

MINIMIZING THE RISKS OF BUSINESS

Just now, credits are easy but we must look forward to a period after the war when there will be a great demand on the United States for additional credit and the business interests should, therefore, plan to use every credit which can be made available—and this issue is quite as important to electrical men as to any other industry. For a general use of the trade acceptance would do more than any other one thing to minimize the risks of business, and in the majority of cases the adoption of the use of trade acceptances would result naturally in curtailing overbuying—in more careful extension of credit and better business methods which will encourage and enable the retailer to handle his business in a manner which will prove more profitable.

Banks throughout the country will be found ready and eager to cooperate.

But, after all, the best proof of the superiority of the trade acceptance plan over the open book account is the fact that a steadily increasing number of the most progressive business houses in the country are arranging to adopt the system or have already done so, and those using it find it most satisfactory.

GETTING IN ON THE GROUND FLOOR 2000 TIMES

The Story of a Most Unusual House-Wiring Campaign—Both in Methods and Results

By C. M. KALTWASSER
General Manager Harrisburg Light & Power Company, Harrisburg, Pa.

RIGHT NOW, when plans for "Wire-Your-Home-Time" are in everybody's mind, we are glad to be able to tell the story of this very interesting experience in housewiring. A very definite condition existed in Harrisburg which had not responded to the usual treatment, and a campaign was planned for the purpose of overcoming these obstacles. Undoubtedly there will be many of our readers who will not agree with the policy on which this very successful effort was based. But as an experience it is interesting and valuable and the figures are certainly impressive. What would you have done in this case?—THE EDITORS.

LAST year in Harrisburg, Pa., the Harrisburg Light & Power Company connected to its lines approximately 2000 more new customers than it had ever secured in any previous year. Harrisburg, remember, is a city of 64,000 population and for years the central station has been active in the pursuit of business, so that this phenomenal gain in customers becomes an interesting achievement, and the conditions under which our "Special House Wiring Campaign" was conducted, I believe, will be of general interest to central station men and contractors. We were confronted by a situation which seemed to call for the most energetic measures and the results have certainly justified the means.

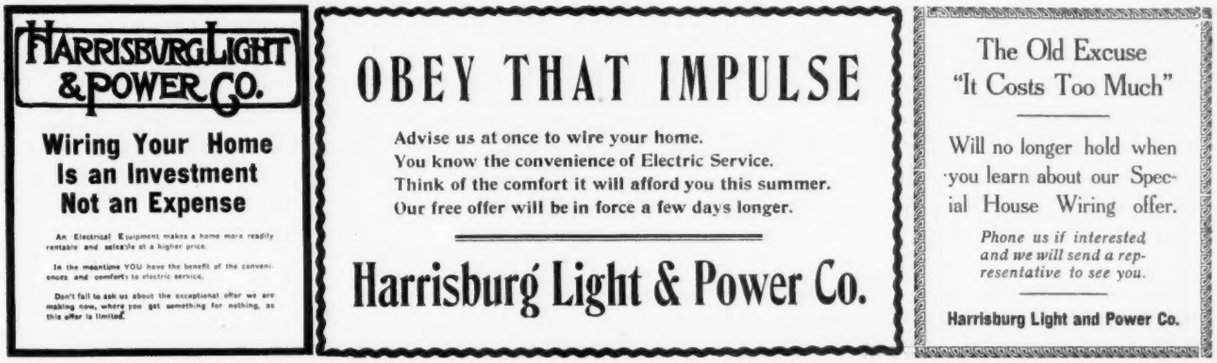
For Harrisburg is a very conservative Pennsylvania city that has always been predisposed to gas for lighting. The gas company was established for many years before electric service became available, and gas has maintained its popularity very largely. Naturally electricity has become the standard for all modern buildings and our business has grown and developed through the years most satisfactorily. But the fact remains that hundreds of homes of people who could well afford to use electric light still continued to depend entirely on gas, because that was what they had always used; and in addition, of course, there was that other class of smaller houses that offered a very large opportunity for business if we could overcome the obstacle of wiring cost.

This company maintains a wiring department and both our own department and the local contractors had been unsuccessful in securing business from these two classes of customers to the extent that we felt ought to be possible. We therefore decided, about the first of last year, to organize a special house wiring campaign on rather radical lines. In short, we offered to install four outlets on the first floor of any house without charge, provided that the job was done in open work. If concealed work was substituted, a small charge would be made, and if additional outlets were desired these were contracted for at regular prices. Therefore, the offer to install four open work outlets without charge became in effect an advertising feature of the campaign. And we counted on additional outlets and concealed work and the sale of appliances, to actually put the whole campaign on a paying basis. We scheduled the offer to be extended to 250 houses, beginning on the fifteenth of March, 1916.

In detail, our proposition was to wire free of charge on the first floor,, four outlets, open work, complete with drop cord and sockets, or to charge $2 for the four outlets if the customer desired concealed work. Our salesmen were instructed, however, to persuade the customers to have the work concealed, with the result that out of a total of 1901 contracts completed only one job was open work.

The only conditions we made in connection with these campaigns were that the prospective customer must be on our existing lines, and that the four outlets wired would have to be located on the first floor. In case there was room for only three outlets on the first floor and it was desired to place one outlet on the second floor, then we made an additional charge equal to the increased cost made necessary on account of placing such outlet on the second floor. All outlets above four were charged for at the following prices:

$2.50 per light outlet.
$2.50 per switch outlet.
$1.00 for S. P. push button switch installed.
$1.25 for 3 P. push button switch installed.
$1.25 for flusn receptacle.
$4.00 for cellar light on snap switch complete.



In connection with the campaign the company's newspaper advertising was only slightly increased over the normal amount of publicity.

Our salesmen were paid $1 for each contract which they secured under this special wiring proposition.

We were particularly desirous of working together with the contractors in every way and enlisting them in the campaign, so that it might result in benefit to them, no less to ourselves. The purpose of the campaign was to open up that mass of old house wiring that for so long had been inaccessible and by connecting up some hundreds of new customers advertise electric service widely and make immediate market for more wiring and appliance sales, in which the contractors would secure their full share. We realized also that the amount of business we would secure would swamp our wiring department and that the contractors were vital to any big success.

We therefore entered into an agreement with the local wiring contractors by which they agreed to wire the first four outlets, in concealed work, including meter loop and inspection fee for $8. Of this amount, the company paid the contractor $6 and the customer paid $2 direct to the contractor, as provided in the contract. These contracts were taken under a special form of agreement which is reproduced on this page. It will be seen that we went directly to the tenant and secured his signature after which the consent of the owner was obtained. And this proved a most effective point of entry. The amount of money invested did not deter either from a step so desirable to both.

So the first campaign began on March 15 and ran till June 30, on this basis. Then on September 1 a second similar campaign was opened and this one ran till Nov. 10. However, we were only able to secure co-operation on the part of the local contractors during the first campaign, as they claimed that they could not make any money by doing the work at the price paid them. While this was undoubtedly true, yet our belief was that the contractor would make his profit on the additional wiring which he would be able to secure from the customer, and also from the sale of fixtures and appliances. Our subsequent experience proved that we were correct in our contention, for it happened in over five hundred cases where the customer first signed up for four outlets, that he later increased his contract to embrace additional wiring, and also bought fixtures and appliances from the local contractors.

C. M. KALTWASSER
General Manager Harrisburg Light & Power Company

This we had confidently counted on and we know that there will continue to be further wiring done by the contractors for their campaign customers, as these people decide to extend their installations to additional rooms. We feel therefore that it was good business for the contractors to co-operate in the early stage of the campaign and cash in on the profits of the additional sales that otherwise would be beyond their reach.

We completed during these two campaigns 1901 jobs, aggregating 10,881 outlets, or an average of six outlets per job, the maximum number of outlets wired on any one job under these campaigns being twenty-eight. We had originally secured 2369 contracts, but 468 were cancelled. The reasons for this number of contracts being cancelled were two. First, a contract would be signed, but before we had an opportunity to do the work the people would move. Second, owing to our inability to obtain a sufficient number of wiremen, after making strenuous efforts to secure such men throughout the city and different parts of the country, we were often unable to start the job for several weeks after the contract was taken—in fact in some cases it was six or eight weeks before we could actually start work—and the contract would be cancelled on account of the delay in doing the work.

Our line service and meter departments were able, at all times, without the help of any extra men, to connect the services and install the meters as fast as the wiring department could complete the wiring installation, so that the delays were occasioned entirely on account of our inability to obtain enough inside wiremen to complete the various jobs promptly. Naturally the difficulty was increased in the second campaign when the contractors were not directly supporting us. They were exceedingly busy, however, as the widespread comment and publicity which the campaign induced brought in a lot of other business to everyone.

The campaign itself, for instance, was responsible for 1901 new customers, but there were in all 2877 new customers connected during the year, and a large amount of other wiring was stirred up at the same time. People got interested in the subject

REPORT ON SPECIAL WIRING CAMPAIGNS CONDUCTED DURING SPRING AND FALL OF YEAR 1916, FROM MARCH 15 TO JUNE 30 AND FROM SEPTEMBER 1 TO NOVEMBER 10, EMBRACING BOTH STEELTON AND HARRISBURG

	First Campaign	Second Campaign	Average	Total
Total number of contracts completed	966	935	.....	1,901
Total number of outlets installed	5,415	5,466	.....	10,881
Average number of outlets per job	6	6	6	.....
Paid contractors for installing 430 Special Wiring Contracts; 328 on first and 102 on second campaign	$2,017.29	$617.90	.....	$2,635.19
Cost of cord drops supplied contractors	864.28	71.69	.....	935.97
Total cost of 430 contracts installed by contractors; 328 on first and 102 on second campaign	2,881.57	689.59	.....	3,571.16
Cost of labor and material, installing 1471 contracts by company's wiring dept. 638 on first and 833 on second campaign	7,371.98	9,421.69	.....	16,793.67
Commission paid salesmen for securing above contracts; 966 on first and 935 on second campaign	908.35	821.45	.....	1,729.80
Total cost of campaign	11,161.90	10,932.73	.....	22,094.63
Amount received from customers for wiring	5,494.70	5,800.27	.....	11,294.97
Net cost of campaign	5,667.20	5,132.46	.....	10,799.66
Average net cost per job completed	5.87	5.49	$5.68	.....
Average cost of actually wiring four outlets, including labor, material and salesman's commission	8.24	8.48	8.36	.....
Amount paid by customer for wiring four outlets	2.00	2.00	.....	.....
Average net cost for four-outlet job	6.24	6.48	6.36	.....
Total electric revenue received from spring campaign from April 1, 1916, to Jan. 31, 1917	8,915.44	.....	.....	.....
Total electric revenue received from fall campaign from Sept. 1, 1916, to Jan. 31, 1917	.....	3,266.91	.....	.....
Total electric revenue received from both campaigns to Jan. 31, 1917	.....	.....	.....	$12,182.35

and had additional outlets installed and better fixtures put in because everybody was doing it. In fact, ever since the close of the campaigns, we have been continually receiving orders from customers connected under the special wiring plan, for additional wiring and fixtures, and we feel that we are securing a great deal of business in this way, which we would not have otherwise had.

Though it may seem strange, we did not do any extensive advertising in connection with these campaigns, and our newspaper advertising was only slightly increased over the usual amount of advertising that this company does. The only special advertising that we did was the distribution of 17,000 handbills, which cost us $600. In working up the results of these campaigns, we therefore did not include any item for advertising because we felt that whatever profit was made on the increased sale of appliances would more than offset any increase in advertising costs.

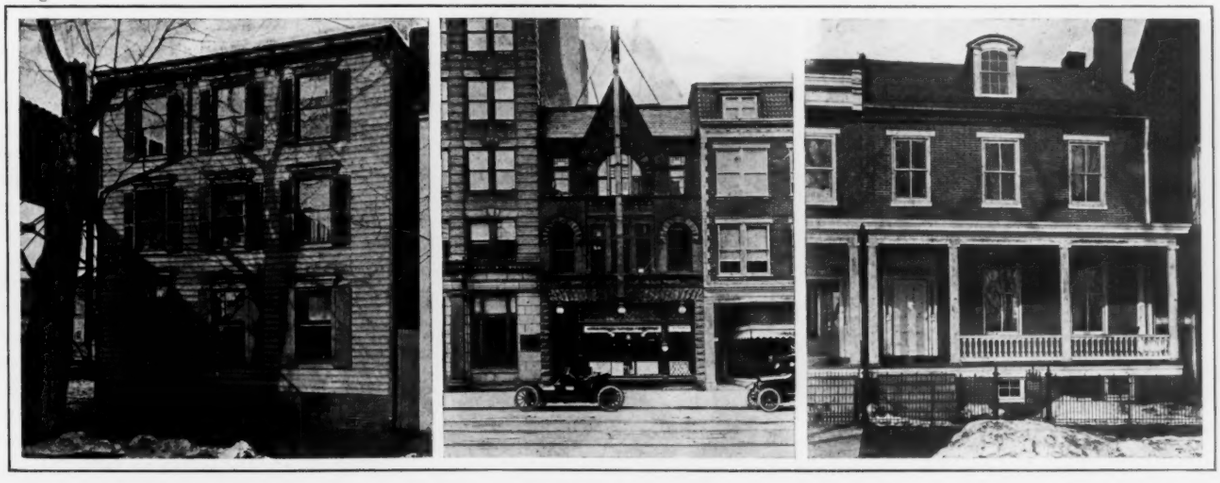
Although we endeavored to keep track of the appliances sold to the customers taken on under the campaigns, it was found practically impossible to do so because a great many of the sales were cash sales, and we had no way of determining just what appliances were sold to customers secured under the campaigns. In addition to such sales by our own company, a great many appliances were sold by local contractors, all of whom agreed that their merchandising business improved considerably as a result of these campaigns. As I have said, we connected to our lines during the year of 1916 approximately 1900 to 2000 more consumers than we connected during any previous year, the total number of consumers connected being 2877, as compared with an average of from 850 to 1000 for previous years.

A little study of the accompanying detailed tabulation will be interesting to anyone who cares to analyze this campaign with an eye to costs and profits. These figures show all the items that entered into the net cost of the work and also the revenue derived up to Jan. 31, 1917, from the consumers connected under this special campaign offer. These figures embrace both Harrisburg and Steelton, which is a suburb that we group with the city proper. It should be noted in this connection, that we have already derived from these consumers sufficient revenue to cover the entire cost of the campaigns, the revenue to Jan. 31 being $12,182.35, and the net cost only $10,799.66. The question of distributing the net cost of such a campaign of course depends largely upon the financial condition of the company, but I believe in any city the entire amount can be absorbed in the operation during the year in which the campaign is conducted, or it can be distributed over two or three years if preferred.

Mr. H. N. McConnell, commercial manager of the United Gas Electric Engineering Corporation, on one of his visits to this property from the New York office, was asking me as to the character of consumers that the campaign was bringing in. We looked over the list of jobs in process and noticed a card from a lady whom I knew of. She lives in a fine brick house, and Mr. McConnell and I went around to see the job and ask her why she had been interested in the campaign offer.

She told us that she had never had electric lights installed because she had not been sure that she would like them. But our offer gave her an opportunity to try it in a few rooms, and show how much the cost of light would be. But when our men came, she said, she was so well impressed with the quick and careful way they did their work that she decided to have the whole house wired. Her bill for wiring amounted in all to $109, and such occurrences happened again and again. But in this particular case there was a sequel. After a few months this little lady came to the office one day and said that she was so well impressed with the treatment she had received and the service we had rendered that she had decided to buy some of our securities. And she finally invested the better part of her savings in securities of the Harrisburg Light & Power Company.

After all, the measure of a campaign is its permanent influence and I am satisfied that our's has been a lasting and profitable success. Moreover, by this extra effort we have added 30.5 per cent as many accounts as the company had previously acquired in the entire 28 years of its existence and we brought in new customers that at the old rate of increase would not have been paying us an income for several years. These customers are now paying us a monthly bill, and because we restricted our campaign to the territory covered by our lines this new business has cost us very little to take on.



Two pictures showing typical houses wired during the campaign in Harrisburg. These embraced everything from the very small frame house to the large brick residence in the best street. The center panel is the building of the Harrisburg Light & Power Company

THE MERCHANDISING OF LIGHTING

An Analysis by NORMAN MACBETH
Formerly Editor "Lighting Journal"

Dr. Harvey W. Wiley, father of the present pure food laws—an expert on pure foods and a specialist in food adulterants—was reported recently in the newspapers to have stated that much of the poor physical condition of the younger generation in America is due to the low food value of white bread, generally considered the American "staff of life." White bread is made from white flour, the manufacture and final whiteness of which has been carried to an extreme of refinement so dear to the heart of the expert miller.

As a manufactured product, the American white flour is about the last word in excellence as a quality production. This very refinement in manufacture, however, has served to render it almost useless for its purpose—to make healthful bread—an important part of the daily food of millions, which is doubtless the point of view of Dr. Wiley. Other flours of less refinement and greater food value are, of course, available. With the concentration of advertising and sales effort on white flour, the wholesome products, whole wheat and similar flours, have been left on the top shelves to serve those who demand nutritious wheat food.

There is more than a superficial tie-up to modern lighting in this situation, as the mechanical perfection in lamps like the high grade flour has very properly been the aim of the manufacturers. Furthermore, flour is necessary for bread; lamps for lighting service. The bread is desired for food, the lighting service to enable us to see effectively after sundown. Both are dependent for final results upon the human body, one through the stomach, the other through the eyes.

As in flour, so in electric lamps, the manufacturers have attained considerable perfection, and the refinements of manufacture have been carried far. The production of light with the more generally used electric lamp—the incandescent metal filament—requires an energy expenditure of but 20 per cent to 30 per cent of that necessary for the same amount of light in the days of the carbon filament lamp, many thousands of which are still with us in every-day use. The manufacturers' pride of achievement in incandescent lamps has also been well advertised, and the distribution so extended that lamps are now awaiting the demand of the ultimate user in many places, even in the corner drug store.

Every effort by carton, attractive packing and window display has been made to have this product accepted as one that may be readily handled over the counter without more knowledge necessary on the part of him who serves the customer than may be expected from a man who can devote from one to ten 500,000ths of his active knowledge to each of the products he has to hand over the counter to an inquiring customer.

THE LOW COST OF LIGHTING

The low cost of lighting due to the higher efficiency lamps, the reduced rates per unit of electrical energy, and the selection for concentration by the central station of those big, individual attractively appearing output possibilities in power and similar fields has brought about the consideration, if it can be so named, of lighting as a by-product, a something to be left in the hands of the consumer who, stimulated by popular magazine publicity, is assumed to be competent to select satisfactory equipment. In the carbon filament days and the period of high cost for lighting service, this consumer had almost learned to creep; that is to say, his use of lighting was limited largely by what he thought he could afford and, with the more general supervision of the central station man at that period, it was really difficult for a consumer to so arrange his lighting equipment that it was likely to be harmful to his health or fail to contribute to his comfort.

The high-cost-of-light idea still largely persists with the consumer. The price appeal is strong. The rate reductions are gradually forcing the central stations to let go such supervision as has been practised in the past to a more or less limited extent. Reflector manufacturers, glass and metal, had through their engineering departments been in a position to render much helpful service on individual installations. Competition among these manufacturers, however, has done much to reduce the profits and level the prices. The fixture manufacturer is largely local in his influence and has made very little change in his methods of doing business of a decade ago. The one question apparently raised by both consumer and salesmen alike "How much does it cost?" rather than "What will it do when properly installed in accordance with reasonable engineering attention?" results in the general public facing a situation in lighting similar to that to which Dr. Wiley calls attention, with white flour, a much weakened, if not broken staff of life, a false support.

Lighting service over the counter, lamps in the drug store, reflectors and lighting equipment generally in the popular and general magazines, with sales forced on the dealer on a price-appeal basis; central station rates down to service to the meter only; health departments declaring that "insanitary conditions exist with improper lighting" by high candlepower lamps, frequently with concentrated filaments substituted in light density, glassware or shallow dome metal reflectors, or placed in fixtures as just bare lamps; State compensation commission and accident insurance companies penalizing the bare and improperly shaded lamps as factors to be considered as contributory to acci-

The "Lighting Journal" Merged with "Electrical Merchandising"

With this issue those features of the *Lighting Journal* bearing on lighting sales and lighting methods are incorporated in *Electrical Merchandising*, and on this and the following pages will be found lighting articles of practical value to the electrical contractor, dealer and salesman. As announced last month, the *Lighting Journal* has been merged with *Electrical Merchandising* and *Electrical World*, and articles on the art and science of lighting will appear regularly in the latter publication.

dents and, as such, to be penalized in insurance premiums. Where does it all lead? It seems to be up to the contractor and dealer who can and will render lighting service, the one man logically in the position to profit through rendering service.

The lamp manufacturer is essentially a manufacturer, as is the central station concerned in the generation and distribution of electrical energy. The glass and metal reflector manufacturers know manufacturing, costs and discounts, and the approach to the jobber. To the "man-in-between" in close touch with the consumer comes the opportunity to tie together merchandising and lighting service, and to this man, the electrical business man, ELECTRICAL MERCHANDISING is directed. Lighting service must be lifted out of this highly refined quality manufacture, material-over-the-counter basis to service delivered to the consumer's eye—easy, comfortable seeing. This service is worth any price you are justified in placing upon it. Lighting service, like an art production, may not be stocked on a shelf and carry a price tag, but carrying taste and personal service will always justify its cost plus a profit. Instances without number have shown the justice and entire satisfaction resulting with a $25 service charge, even with as little as $5 worth of the manufacturers' product, a total of $30 for an installation to deliver seeing ability to the eye.

Articles comprising the complete "how it was done" are believed to carry the strongest conviction and to result in the most direct action. These we will endeavor to supply in the lighting section of ELECTRICAL MERCHANDISING to as great an extent as possible. Desirable complete working descriptions of the simple, frequently recurring kind, with the emphasis on "how" as far removed as possible from the discussion point of "why" or "perhaps" or "it can be done."

The trade paper noting the daily advance in the "how it was done" is without doubt the greatest distributor of business-building information in a field where the advance is rapid and the demands of the general public for service greater than the present methods of delivery can take care of. This demand, let us emphasize again, is not for conduit, wire, switches, fixtures, sockets, lamps, etc., individually as such, but for complete lighting service satisfying to the eye.

LIGHTING SALES AND METHODS

Items of Experience and Good Advice in Lighting Practice

AN INNOVATION IN LAUNDRY LIGHTING

By W. G. STICHBERRY

When Wise Brothers, shirt manufacturers of Baltimore, Md., decided to erect a new factory building they became greatly interested in the lighting equipment, and with the co-operation of the Consolidated Gas, Electric Light & Power Company and the Edison Lamp Works, equipment was selected for each department best suited to its requirements. One of the most important parts of the plant is the laundry. This is in reality the finishing or final inspection room, for the shirts must be laundered in a most perfect manner before distribution to the retail trade. After the ironing is completed they are subjected to a rigid final inspection to make certain that there are no blemishes to detract from their appearance.

The quality of light is of a great deal of importance in the laundry. One of the most frequently occurring defects is a stain from iron rust or scorching; these all tend to be yellow or brownish in color. If a yellow mark on white material is illuminated by a light with an excess of yellow rays, it is almost impossible to distinguish the mark from the background, for both the surface and the mark become of the same order of brightness. From this it can be seen that the unmodified light from most illuminants, with its predominance of red and yellow light, would not be of the most satisfactory color for illuminating a laundry.

The Mazda C-2 lamp is designed to give a much whiter light than the regular Mazda C lamp. The Mazda C filament in this lamp is operated at a somewhat higher temperature, and a special blue glass bulb is used. This bulb subtracts much of the excess light at the red end of the spectrum, but allows the light at the blue end to be completely transmitted as

Special blue-bulb lamps were installed in the laundry of Wise Brothers' Baltimore shirt factory in order to aid in the detection of scorches and stains on the washed fabrics. While no light is transmitted through the reflectors, there is considerable reflection from white goods on the tables to the ceiling.

with clear glass. The combination of the two factors of higher filament temperature and special bulb produces the resultant quality of light.

The laundry department of the Wise Brothers plant is 48 ft. by 188 ft. in size, divided centrally by a row of columns, making a total of forty-four bays. Direct lighting was decided upon in order that a high intensity of illumination might be produced at an economical figure. The entire floor area being devoted to working space, outlets were placed in four rows 12 ft. apart on approximately 16 ft. centers, spaced symmetrically with reference to the bays, resulting in practically uniform illumination.

One hundred and fifty watt Edison Mazda C-2 lamps were used in National X-Ray silvered glass reflector No. 570. The distance from the floor to the bottom of the reflector is 10¼ ft. A very simple hanger was devised of a short piece of ⅜-in. iron pipe, attached to the outlet box cover by means of a bushing. The porcelain sockets supported the reflector with a 3¼-in. shade holder. The intensity of illumination at the level of the ironing board is 3.8 foot-candles; the power consumption being 0.88 watt per square foot.

The side walls above a point 3½ ft. from the floor and the entire ceiling are finished in flat white. There is no light transmitted through the reflector, yet the light goods on the tables reflect sufficient light to cause the ceiling to appear fairly bright.

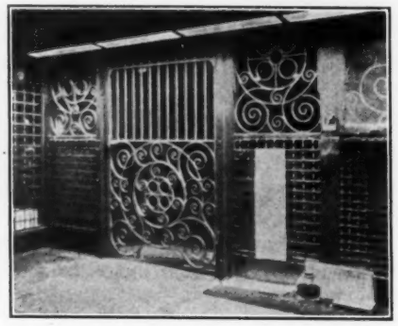
The night photograph accompanying gives an approximate idea of the illumination effect. The results are highly satisfactory to the management, and the employees are well pleased with the efforts which have been made to increase the efficiency of their work, provide pleasant surroundings and to eliminate mistakes.

It has been found that slight soils are easily discerned, and scorches on the starch stand out very prominently. Such careful attention to detail is quite important if a manufacturer desires to build up a high class trade with an "A No. 1" product.

The average laundry is merely lighted. That added efficiency may be attained by the use of scientific illumination has probably never occurred to most laundry owners, and there is a chance for the contractor to be of real service by showing them what better lighting will do for them.

Solving the Bank Lighting Problem

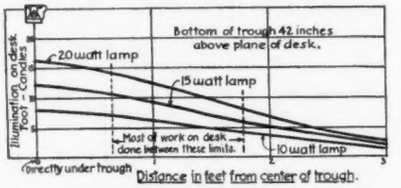
Bank screen lighting has been used to such an extent that it is now practically considered standard equipment. The National X-Ray Reflector Company, Chicago, states that after considerable time given to experiment and numerous actual working tests to determine a satisfactory equipment for the lighting of bank cages, it has produced a special equipment for this purpose, available for the convenience of contractors in this bank field. Owing to exacting conditions and particular requirements of the work performed in banks, the lighting is of considerable importance. Spotty or uneven lighting requiring rapid adjustment of the eye is responsible for fatigue and can doubtless be blamed for many costly errors on the part of the bank employees. The demand requires a high intensity of light as well as an even distribution over the entire working plane to enable the worker to see with some degree of comfort at the various points where work is done.



Screen lighting equipment gives a high intensity of light and an even distribution over the bank desk.

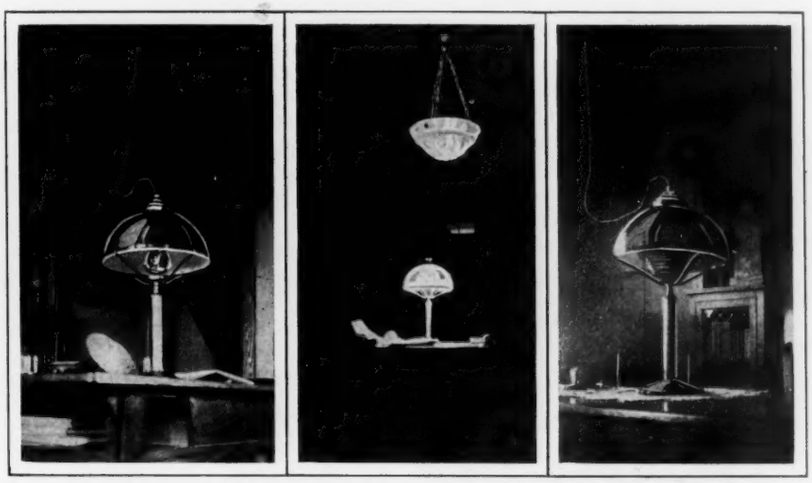
This bank screen lighting equipment is box-like in shape, with sliding glass doors on the bottom and a removable metal panel on top for access to the wiring. Individual reflectors are used over each lamp. These are of the X-ray type, and it is claimed that all the light from the lamps is reflected down through the diffusing glass onto the desk. Added efficiency is claimed for this method, and it is stated that smaller lamps can be used than have been generally considered necessary in the past. A special prism sheet glass having low absorption and good diffusion conceals the interior equipment from view from below. It is claimed that the absorption of this clear glass is much less than frosted or opal glass. The glass is also easily cleaned, as particles of dust do not readily adhere to it. Distribution curves are given showing the resultant intensity of illumination on the bank desk when 10, 15 or 20-watt Mazda lamps are used. It may be noted that with 10-watt lamps, a 5-foot-candle intensity is delivered on that part of the desk where work is done. With a slightly different finish of the metal box, this equipment is also adapted for use over bookkeeping desks, being supported on standards over and parallel with the center of a double desk or on the back of the single desk. This outside metal work is furnished in different designs to correspond with any scheme of metal ornamentation adopted for a particular bank.

Standard distance for spacing between centers in the double sockets in the trough is 14.75 in. but may be extended to 18 in. Regular metal molding is used under the top panel for the wires, and this can be cut to any length desired to correspond with the spacing selected. The depth of the unit is 4.75 in. Sections or units can be made up in various lengths. This trough can be supplied with plain ends, finished ends, finished on one side or two sides, and various other combinations. It is stated that where general lighting is used throughout the room that 10-watt lamps furnish an ample intensity. The entire equipment has been approved by the National Board of Fire Underwriters.



These curves show the illumination intensity on the desk with three sizes of lamp

Individual reflectors are used over each lamp. The trough is box-like in shape, with sliding glass doors on the bottom and a removable metal panel on the top for access to the wiring.

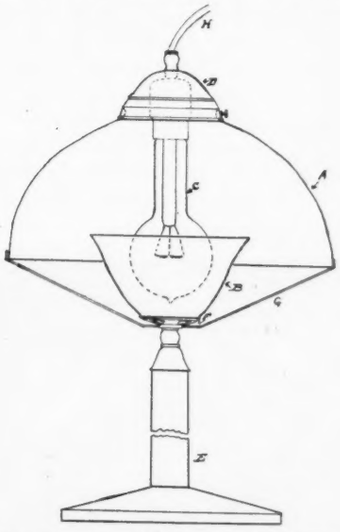


With the mirrored reflector removed, the position of the lamp with relation to the shade is shown. For a low intensity of general illumination about the room the table lamp may be supplemented by a semi-indirect bowl using a 15-watt lamp. With the reflector in place, the lamp filament can only be seen by looking through the ventilating holes in the shade holder.

An Eye-Protecting Table Lamp

By F. ALEX. McDERMOTT
Washington, D. C.

For a number of years the writer has been in search of a table lamp which, in accordance with progressive ideas in lighting, would be so constructed as to make it impossible for the primary light source, the filament, to be directly visible, but which would still give sufficient light for comfortable reading. A number of entirely inclosed types of table lamps are on the market, but these cannot be used with the Mazda C lamps, and very few of them with lamps large enough to give sufficient illumination for working purposes after passing through the dense glass of the lower portion of the shades. The ordinary open types of table lamps were ruled out of consideration, as without exception they left the bulb exposed to direct vision—a feature destructive to comfort.

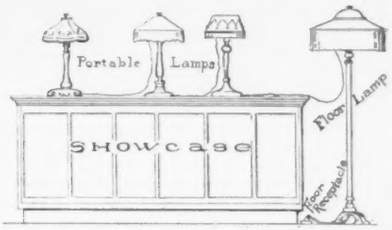


Here are the details of a table lamp designed to protect the eyes: (a) Opal lined, green-cased glass shade; (b) opaque, one-piece mirrored reflector; (c) Mazda C lamp; (d) husk holder supporting keyless socket and attached to the top of the green shade; (e) base; (f) small shade-holder supporting opaque reflector; (g) four-arm wire support for glass shade; (h) cord leading to overhead source of current. A straight through switch is conveniently located on this cord.

At last the lamp shown in the accompanying illustrations was made up; it has gone through occasional modifications of the original construction, and the lamp in its final form is as follows: On a standard table lamp base of simple design is mounted a 12-in. glass shade, white inside and green outside. At the base of the four-armed support for this shade is a modified socket shade-holder fastened to the threaded nipple to which the socket is usually attached in lamps of this type; this holder carries an opaque one-piece glass mirrored reflector. The porcelain shade is of the type that is open at the top, and on the neck around this open end is fastened a ventilated shade-holder, bearing a keyless socket held in place by means of a brass nipple and bushing. This socket thus projects downward inside of the upper shade. When using a 60 or 75-watt Mazda C lamp, or a 100-watt Mazda C blue bulb lamp, the filament is below the level of the upper edge of the mirror reflector; the lower edge of the green shade is also below the upper edge of this reflector, and consequently the filament can only be seen by looking down through the ventilating holes in the top of the shade holder. A very comfortable distribution of light is obtained, especially with the 100-watt blue-bulb lamp. The shade gets quite warm, of course, though not excessively so.

Serving Several Portables from One Socket

The electrical store with enough receptacles to permit "hooking up" everything on display is the exception, not the rule. Therefore, the scheme used in the stores of the Public Service Company of Northern Illinois for making one outlet serve several portable lamps may be of interest to other electric-shop keepers. The cord of the floor lamp is attached to the floor receptacle; a table portable is fed from one of the sockets under the shade of the floor lamp; a second portable is fed from one of the sockets of the first table portable, and in this way any reasonable number of lamps can be lighted from one outlet.



A sightly method of connecting several portables to one socket.

How Electric Light Multiplies Wiring Contracts

By R. H. STEPHENSON

Menominee & Marinette Light & Traction Company, Marinette, Wis.

In promoting your wiring business, practise what you preach and "Do It Electrically!"

Have a signboard made up of wood or sheet metal, about 6 ft. by 8 ft., and have the following lettering painted on the board:

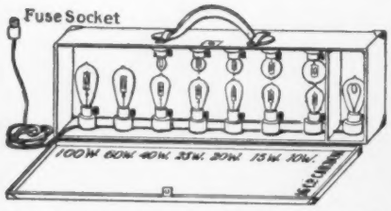
"We Are Wiring Your Neighbor's Home for Electric Lights. Why Not Yours? Ask Us About Our Easy-Payment Plan."

Have this board equipped with a standard billboard reflector, a 200-watt nitrogen lamp, and a time clock.

Mount a metal clamp on the back of the board so that it can be fastened to a service pole, and when you secure a contract to wire a home in a certain neighborhood, put up your sign in that district and multiply your contracts there. Set the time clock to operate the lamp from dusk until midnight and your business tonic will get in its good work for you day and night.

How a Demonstration Case Helps a Lamp Salesman

An easily made demonstration case with sockets for 8 or 10 lamps may be used to great advantage by the wide-awake lamp salesman. A light fibre



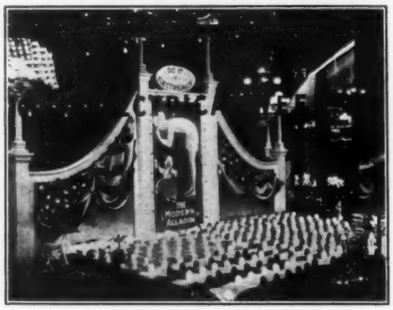
This demonstration case helps customers to decide on lamp sizes

case, containing the usual sizes of lamps required for home use and so wired that any of the lamps may be lighted serves the purpose. A detachable plug and a long cord make connection easy in any wired residence, office or shop. The inside of the case, finished in white enamel paint, can be made to serve as a reflector. This feature is particularly useful in showing what the modern high-efficiency lamp will do toward improving working conditions in dark shops.

Charging Batteries in Window

After dark there are few people who pass the Eureka Battery Station in Yonkers, N. Y., without glancing in the window. A mercury arc rectifier, mounted in the center of the window, throws blue-white flashes over the several batteries being charged and makes the display the best eye-catcher on the block. In addition to the batteries on charge small motors and generators are also shown.

Timely Use of Flag Display



The use of the flag in window displays has had a tremendous increase in the face of international complications. The picture shows the lamp studded flag in the window of the St. Joseph (Mo.) Railway, Light, Heat & Power Company.

Window Lighting in Colors

Instead of using colored lamps, which sometimes are difficult to procure on short notice, many window trimmers use sheets of gelatine film. This material is used in theaters to effect the color changes in the spotlights. The local theater electrician or moving-picture operator is usually able to tell where it may be secured. Gelatine film is easy to handle, is practically fireproof and, after a few experiments, it can be employed to secure many remarkable color effects.

A Basement Salesroom for Lighting Fixtures

The Hartwell Electric Company of San Diego, Cal., found that its trade in lighting fixtures warranted more display space than could be spared for this purpose on the main floor. Attempts to suspend the fixtures above the appliance display space were made but the ceiling was too high to make this satisfactory and it afforded no means of displaying table lamps. In seeking further for some more effective method of showing off the fixtures it was decided to try fitting up a corner of the basement. Accordingly, it was possible to spare a 12-ft. by 38-ft. corner of the basement without inconvenience. The location chosen was near a stairway from the main display room, affording easy access.

This space was adapted to the special needs of the lighting display room by building up walls and ceiling

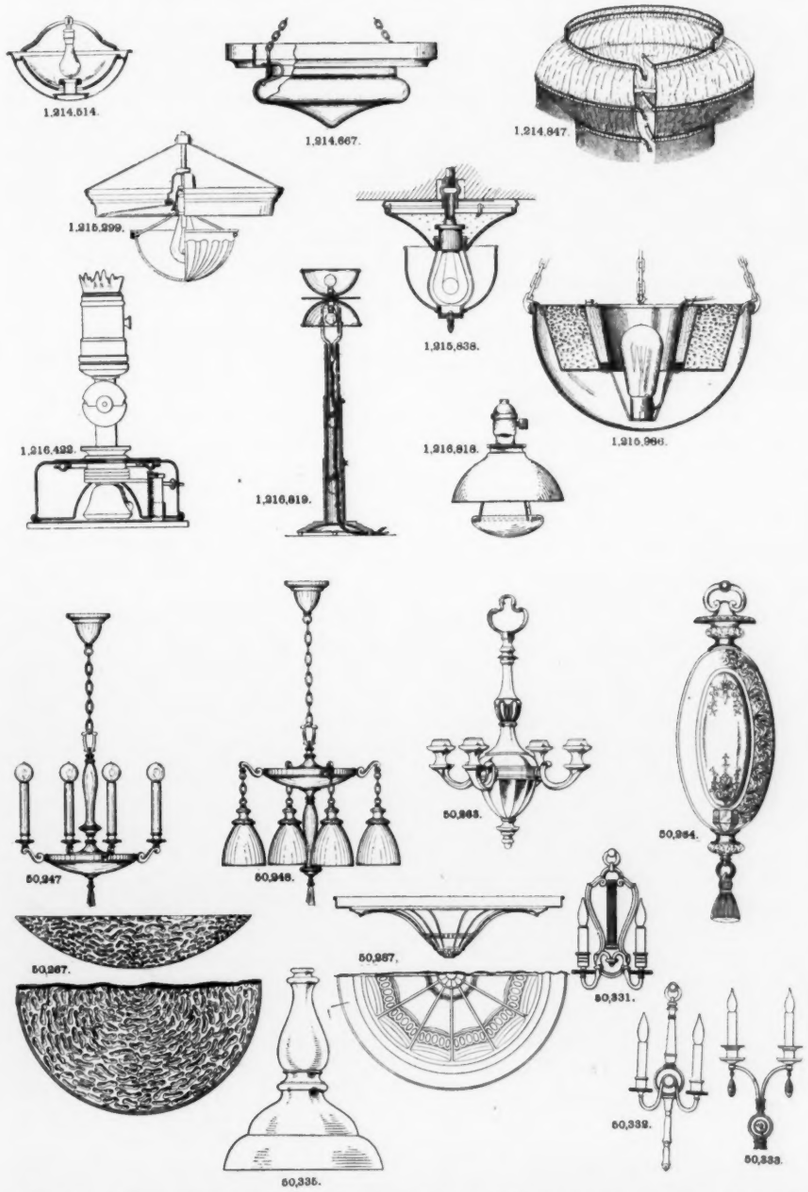
Corner of basement formerly used for storage made into attractive fixture display room for Hartwell Electric Company, San Diego, Cal.

of a light studding framework covered with black building paper. The joints between paper strips were covered with battens stained a dark brown. The space was divided into three portions with large portals between so as to give the effect of separate rooms without obstructing the general view of the entire stock. The cement floor was painted a maroon color and suitable rugs and library tables placed in the two larger rooms.

The advantage of a specially built fixture display room was that it was possible to put a row of wall fixtures at proper height along the wall while shelves at table height could be used for the stand fixtures. In addition to the ceiling, the underside of high shelves was also used for supporting hanging fixtures and thus any desirable level was made available for displaying the various types of fixtures. Tabaret lights were placed on the floor and inclined shelves were used for displaying bowls.

Practically all of these fixtures were connected for lighting while on display, the wiring being such that each row of fixtures was controlled by a single switch. The cost of building and wiring this display room, including all labor and materials, is estimated to have been about $50. It has proved most popular with prospective customers.

Record of Lighting Fixture Patents



Copies of illustrations and specifications of any of these patents may be obtained from the Commissioner of Patents, Washington, D. C., for five cents each

Construction Patents

*1,214,514. LAMP FIXTURE. Augustus D. Curtis, Chicago, Ill., assignor to National X-Ray Reflector Company, Chicago, Ill. App. filed Feb. 9, 1914. Issued Feb. 6, 1917.

*1,214,667. SUPPORTING MEANS FOR ELECTRIC LIGHT FIXTURES. Henry A. Framburg. Berwyn, Ill., assignor to H. A. Framburg & Company, Chicago, Ill. App. filed Oct. 27, 1915. Issued Feb. 6, 1917.

*1,214,847. LAMP SHADE. Olivia W. Tucker, Brooklyn, N. Y. App. filed Sept. 16, 1916. Issued Feb. 6, 1917.

*1,215,299. LIGHTING FIXTURE. Eugene J. Meyberg, Los Angeles, Cal. App. filed April 8, 1916. Issued Feb. 6, 1917.

*1,215,838. LIGHTING FIXTURE. Horatio V. S. Negus, Boundbrook Borough, N. J. App. filed Oct. 20, 1916. Issued Feb. 13, 1917.

*1,215,986. COMBINATION FLOWER POT AND REFLECTOR. Arthur Edward Pohlman, Watertown, Wis. App. filed June 26, 1916. Issued Feb. 13, 1917.

*1,216,016. ELECTRIC DISPLAY DEVICE. Charles Tregoning, New York, N. Y. App. filed Aug. 7, 1916. Issued Feb. 13, 1917.

*1,216,422. PORTABLE ELECTRIC LAMP. William P. Dunham, Los Angeles, Cal. App. filed April 21, 1914. Issued Feb. 20, 1917.

*1,216,818. LAMP-SHADE HOLDER. Max Kossmann, Brooklyn, N. Y. App. filed Sept. 18, 1916. Issued Feb. 20, 1917.

*1,216,819. LIGHTING FIXTURE. Ferdinand C. Krueger, Milwaukee, Wis. App. filed June 14, 1916. Issued Feb. 20, 1917.

Design Patents

*50,247. LIGHT FIXTURE. William Polacheck, Milwaukee, Wis., assignor to Charles Polacheck & Brothers Company, Milwaukee, Wis. App. filed Oct. 26, 1916. Issued Jan. 30, 1917. Term three and one-half years.

*50,248. LIGHT FIXTURE. William Polacheck, Milwaukee, Wis., assignor to Charles Polacheck & Brothers Company, Milwaukee, Wis. App. filed Oct. 26, 1916. Issued Jan. 30, 1917. Term three and one-half years.

*50,263. LIGHTING FIXTURE. Robert Y. Barrows, Rutherford, and George V. Strahan, Newark, N. J., assignors to the Mitchell Vance Company, New York, N. Y. App. filed Nov. 2, 1916. Issued Feb. 6, 1917. Term seven years.

*50,264. WALL PLATE FOR LIGHTING FIXTURES. Robert Y. Barrows, Rutherford, and George V. Strahan, Newark, N. J., assignors to the Mitchell Vance Company, New York, N. Y. App. filed Nov. 27, 1916. Issued Feb. 6, 1917. Term seven years.

*50,267. LIGHT DIFFUSING REFLECTOR. Alfred B. L. Clausen, Columbus, Ohio. App. filed Oct. 6, 1916. Issued Feb. 6, 1917. Term seven years.

*50,287. SHOWER PLATE FOR GAS AND ELECTRIC FIXTURES. Solomon Shapiro, New York, N. Y., assignor to Reliance Metal Spinning & Stamping Company, Inc., New York, N. Y. App. filed Dec. 9, 1916. Issued Feb. 6, 1917. Term three and one-half years.

*50,331. ELECTRIC LIGHT FIXTURE. George R. Ainsworth, Great Neck, N. Y. App. filed Oct. 6, 1916. Issued Feb. 20, 1917. Term three and one-half years.

*50,332. ELECTRIC LIGHT FIXTURE. George R. Ainsworth, Great Neck, N. Y. App. filed Oct. 6, 1916. Issued Feb. 20, 1917. Term three and one-half years.

*50,333. ELECTRIC LIGHT FIXTURE. George R. Ainsworth, Great Neck, N. Y. App. filed Oct. 6, 1916. Issued Feb. 20, 1917. Term three and one-half years.

*50,335. LIGHTING FIXTURE. Robert Y. Barrows, Rutherford, and George V. Strahan, Newark, N. J., assignors to the Mitchell Vance Company, New York, N. Y. App. filed Nov. 27, 1916. Issued Feb. 20, 1917. Term seven years.

A Talk with a Hardware Man

Some Food for Thought for Electrical Men Gleaned from an Interview with a Hardware Dealer. What He Thinks of the Electric Line and What He Means to Do with It

By W. E. BAYARD

IT is the habit of the regular electrical man to think that he is the only one who knows the "electrical game." But did you ever actually ask the other fellow what he thinks about it? I have. Did you ever really find out how the hardware man looks at this market for electrical appliances? You'll find it interesting.

I was in a hardware store the other day in my home town in Jersey. It is a small suburban community and this hardware store is typical. The man who runs it has lived there since he was born, and doesn't know a thing about electricity, but he sells Mazda lamps and irons and toasters and a line of flashlights. He sells them just the way he sells aluminum stew pans and mops and chicken feed. He simply carries them in stock, and when a man comes in and says, "I want a lamp," he hands it out. It doesn't make a bit of difference to him whether he sells an oil lamp or a gas lamp or electric. He hasn't any illusions. He is not interested in spreading any gospel. He is not educating anybody. He simply tries to carry what his customers will buy.

I went back to the little office and said: "Crane, why do you sell these electrical appliances?"

"Why shouldn't I?" was his comeback.

"Well, there's no reason why you shouldn't, but why do you? Why bother with the stuff that's really out of your line?"

"I haven't any line," he said. "The only line I've got is a line of customers. I don't care what I sell them."

"But you are not an electrical man," I argued, just to draw him out. "You don't know anything about electricity. You don't know how to explain how these things work and answer questions about watts and volts and amperes." Then came the answer that you get in every case.

"What difference does *that* make? I know how they are used and what they do and that's what the customer is interested in. And I know what they cost and how much profit there is in it when I sell an iron or a toaster, and that's what I'm interested in. And as for understanding electricity, *as long as I know more about it than the woman who comes in to buy*, I get away with that part of it easy. How can she tell that I don't know it all? And what does she care anyway?"

"You find that it never bothers you?" I asked.

"Why, look-a-here," he protested. "The woman or the man who comes to buy a coffee grinder or an egg beater doesn't want to talk about the kind of glass or iron that is in it. They simply want to know if it's a good grinder, and if it will last. They take my guarantee that this is what they want and when they buy an electric toaster it is just the same.

"They aren't concerned with the electrical side of it. What they are thinking of is the bread toasting part. Why, all this talk about having to know about electricity to sell such goods is bunk—pure bunk."

"How did you happen to stock this line?" I asked. "What started you to selling this electric stuff?"

He Stocked His Electric Line to Meet the Demand

His answer is worth turning over in your mind. He said: "Why it was this way: We've been buying stuff from So-and-So, the big hardware jobbers, for a long while and one day their salesman told me that they were taking on a line of electric household goods, and recommended that I try them out. This town is a good market for it, because most everybody uses electric light and there isn't any place in town where these appliances are sold except by some wiring contractors. But nobody ever goes to their shops, and everybody comes here to the hardware store. And this is just another line to sell the home and keep the customers a-buying."

"How do they go?"

"Why, all right. Of course, we don't sell very many because we don't push 'em. But we sold $300 worth of Mazda lamps last year and we average about four flatirons every month and a toaster or two, and a lot of batteries and flashlights. We'll sell more of them all the time as people get to know we carry them."

"What have you done to advertise this electrical stuff?"

"We have done nothing except to put these little manufacturers' folders in our bills sometimes."

"Well, don't you think it would pay you if you did push the line a bit, and play it up now and then in your ad in the local paper and send out some letters and folders?"

"Yes, I guess it would."

"Then, why don't you?"

Crane's answer was a very human one. He smiled and said: "Well, I don't know. I'm not just sure that it wouldn't pay better to push something else. I can sell lots of other things as easy as I can the electric stuff, and there's no use spending money on it, if some other line would bring more money. But I'll have to start pushing it harder for there's going to be a lot of business in these electric goods and I want to build it up and make a big department of it."

This dialogue is all authentic. It's word for word, as well as I remember. It shows the point of view of the general merchant toward this new commodity that the electrical man deludes himself into believing is reserved to him by his superior knowledge of electrical affairs. But the situation in 10,000 hardware stores about the country is exactly as I have described it here.

This man Crane has not yet jumped into the game with energy, and neither have the electrical contractors in his town. He is just getting started—just becoming used to selling things electrical—just getting confidence in them. There is a chance right now for one of these contractors to move his office up into the shopping center and start a little electric store and make himself headquarters for electrical merchandise of every kind. But if he doesn't do it now—if he waits too long—if he doesn't get busy before the hardware man starts in to make a feature of this line he'll never have the chance. For already the hardware store is well established as a place to buy things for the home. The people are already going there. They have the habit well developed.

I wonder why none of the contractors in his town have realized this.

HOW TO MAKE ELECTRIC RANGES STAY SOLD

By C. C. DE BRULER

WHEN A RANGE has been installed in a customer's home then—and not until then—does the greatest sales effort begin. For making a range sale is still an educational matter, and a customer does not really conscientiously begin to learn until the actual problem of using her own new range stares her in the face. Then her questions flash up by the hundred. To make the range *stay sold* someone must answer them. In this article Mr. De Bruler tells in detail how this can be done.—THE EDITORS.

IT is a great mistake in the present stage of the range business to install a range and allow the customer to start using it before the installation has been inspected and before an experienced demonstrator has given the first instructions in its use. Much depends on a customer's first impression of how perfectly the range works, especially if the range is on trial. Even if the range is in perfect working condition and she doesn't get good results, she thinks the range is at fault and is likely to become discouraged.

Some women act helplessly when they start to use an electric range. On the other hand, there are some who prefer to work out their success without any instruction from anyone. Invariably, some of those who do not want help make a failure of almost everything they cook, get discouraged and, nine times out of ten, condemn the range. The percentage who actually do make a success without having received any instructions is so small that I think it is best not to take chances with any customer. The salesman should arrange, in an indirect way if necessary, to give his customer some advice within two or three days after installation. The best method to pursue if possible is to have a demonstrator call just as soon as the range is connected for service. A little cooperation between the installation men and inspector will enable the demonstrator to receive advance notice of when they will finish their work and will allow her to be there at the proper time. It is very important to make a voltage test immediately after installation, for if the potential is more than 2 or 3 volts below the minimum with all units in full heat, the result may be a very noticeable slowness in operation.

A RANGE SALESMAN SHOULD KNOW HOW TO COOK

Every range salesman should acquaint himself thoroughly with the operation of all the types of ranges he is to sell; should learn how to regulate the range, and how to cook and bake a few ordinary things. A salesman may think it is his business only to sell ranges and think the details of knowing how to regulate them, to cook or bake, are entirely for the demonstrator.

Such an idea is very wrong. The salesman cannot know too much about what the range will do, for all this knowledge will aid him greatly in his selling. Even though some women object to men talking to them about cooking operations, I find that all the salesman can learn will do him no harm. Many a time have I been glad I knew how to do certain cooking or baking stunts. During some of the salesman's visits to customers such knowledge will benefit him as well as the customer.

Some women do not pay close attention to the instructions given them. They have been cooking and baking for a great many years and are proud of the fact. They quickly tell the salesman that he cannot tell them how to do this or that. They misinterpret the spirit in which the instructions are given and cannot see why the methods used on an electric range should be different from those for operating any other stove. They think you are a fake when you advise them that meats do not need water added to them when roasting, or that basting is not necessary. Such cases tax both the salesman and the demonstrator to the limit of their tactfulness. In each instance, therefore, it pays to weigh very carefully anything that is said. This applies to the housewife who does her own cooking as well as to the hired help.

Recently I had an experience of this sort. A maid thought she knew more about bread-baking than anyone else in the world. The demonstrator had called after the range was installed, had given the customary instructions and had left feeling that all would be well for a day or two. The first time

the maid baked bread she did not get the best results. The bread was not thoroughly done and not browned nicely. Of course the maid blamed the range. I requested her to let me know when she was going to bake bread again, stating that I would have a demonstrator call and see what was the matter. She said she did not want a demonstrator to come as she knew how to bake bread. I said, "Why, of course you do." I then questioned her very carefully on how she had preheated the oven and on how she had maintained the heat. She said she had let the oven preheat exactly the required time and regulated the heat as she had been told to do by the demonstrator. Not seeing a clock anywhere in the kitchen I came to the conclusion that she certainly was not following directions, even though she said she was. All during the conversation she repeatedly said the range was "no account" and she did not want it.

A TACTFUL DEFEAT OF AN ANTAGONISTIC SERVANT GIRL

Realizing that I would have difficulty in changing her attitude, I decided "to camp on the job." I gave her my card and requested her to call me day or night, either at the office or hotel, if she had any more trouble of any kind. Of course I didn't intend to wait for her to call me. However, she did call me a day later, saying that the oven would not heat. I hastened to the house and found nothing wrong except a burnt-out fuse plug. I replaced the burnt-out plug from a stock I carry in my pocket for emergencies. Then I happened to notice that she was about to bake bread, and realizing that here was my chance I jokingly told her I thought I had better bake that bread for her. She gave me the laugh, but I assured her I could bake. Before she realized it I had the oven heating, intending to bake that bread at all costs.

I asked her to watch me closely, as I was going to follow exactly the same instructions she had been given by the demonstrator. Placing the bread in the oven I let it alone for forty-five minutes. She was annoyed because I would not open the door to look at it occasionally. At the end of the required time, designated by her as her usual baking time, I opened the door and found a perfectly baked batch of bread. I asked that she call her mistress to see the bread as I was sure she would like to see it in the pans. The lady of the house was well pleased. I explained briefly to her how I regulated the range to produce the result. The maid was pleased as well as displeased, and said in a sulky manner that she guessed the range would do. I had very calmly defeated her plans to get rid of the range. Jokingly I told her I was sure she would like the range after she became more accustomed to using it. Then I left quickly. I had no more trouble at this place and the range was accepted after the trial period expired. This incident is one which convinced me of the value of knowing how to bake bread. The incident also demonstrated how, without accusing the maid, I showed her as well as her mistress that she was to blame for not getting good results.

Most housewives have a great many things to do. While the baking is going on they have to look after other work and they do not have time to watch the clock closely or to make frequent adjustments of the heat.

A FEW HINTS FOR DEMONSTRATORS

When customers say they cannot get results as satisfactory as they have been accustomed to getting with other stoves, I find it best in most cases not to argue; I tell them they had better have a little more instruction. Then I arrange for a demonstrator to call again and cook or bake whatever they are having trouble with. If the demonstrator has ability she always produces well-cooked food, with the result that the customer by observation finds out what she has not been doing properly. The biggest thing is to show her it can be done. After that you can always rely on her trying to do her best. Moreover, she then places herself on the defensive instead of the offensive.

The range demonstrator must pay very close attention to an installation the first week. She should not give the first instructions and then forget the customer for a week or more, but should call again the third or fourth day. By that time the customer has had her first experience and has had many questions to ask. It is best on the first visit to cook or bake something in addition to her general instructions; then, later on, if the customer doesn't readily grasp the operation, I find it a great help to cook an entire meal. A suitable time can be arranged for this in advance and all materials can be ready to start the cooking the instant the demonstrator arrives. On these occasions the demonstrator must be very tactful and business-like. She must insist on the customer watching her do everything and must at the same time tell her the why of it. She should not let the customer get the idea that she is there to do the entire kitchen work or to turn the place into a wholesale bakery.

There is a tendency among some demonstrators to do baking with too much manipulation of the oven switches. Such demonstrators overlook the fact that they are spending all their time at this work, while the housewife cannot always stay in the kitchen to watch things so closely. Most housewives have a great many things to do. While they are cooking and baking they have to look after the other housework and take care of children. They do not have the time to watch a clock closely in order to regulate the switches to allow a few minutes of this or that heat, then turn all off for a few moments and then on again, etc. They have to do things in more of a general manner than does the demonstrator. Of course, there are a few things that must have special attention, but as a rule the busy housewife doesn't have time for frills in cooking. If they want to bake under complicated conditions and have the

time, that is all well and good; but such women are few and far between. Demonstrators should give instructions that are brief and simple; those that will enable the housewife to do her cooking in a general rather than a specific manner.

The manufacturers of electric ranges should provide cooking instructions from the standpoint of a busy housewife instead of from a laboratory engineering standpoint. There has been too much of this latter kind and the sooner it is discontinued the better it will be for demonstrators as well as home users.

Bluffing Is No Cure for a Customer's Trouble

After the customer is getting along nicely the salesman should keep in close touch with her for another sixty days. He should not forget her, even after that. Most people who purchase ranges have a telephone, and if a personal call is not thought necessary a brief telephone message is good and will be appreciated. At such times tell the housewife not to be backward about asking for help. Make her feel that unless she is thoroughly satisfied you are not happy.

If a customer has any complaint, no matter how small it may seem to you and you feel inclined to bluff her out of it, don't do it. Right the complaint to her satisfaction and be done with it. I tried bluffing or "kidding" a customer for several weeks and I didn't "get away" with it. I had all my worry for nothing, whereas, if I had fixed up the matter early, I would have been better off. My customer was very exasperating in many ways and lived about 5 miles from the office. The trip there and back took the better part of a half day. During the delivery of the range the back shelf had been slightly marred. The damage scarcely could be seen except when the light came from a certain angle. My customer liked the range, but she thought more of that small mar, so it seemed, than she did of the entire range. I offered to touch it up with enamel, but that wouldn't do at all. She wanted a new back shelf and nothing else.

Small Adjustment Converts Kicker to Booster

I thought she would forget it in time, but no such luck. When the time for her to pay for the range came she flatly refused to settle until that shelf had been exchanged. Finally, in suppressed disgust, I decided I would change that shelf. When I did, her whole attitude changed and she became a real booster. This was an extreme case, but it only shows that sometimes the small matter is after all a large matter to the customer. It doesn't pay to take chances, but it does pay to satisfy the customer absolutely. Of course there are many people who try to take advantage of the salesman and each case must be handled on its merits.

After a customer has used her range satisfactorily for about sixty days, ask her if she has any objection to her name being given as a reference. Never use it without her consent. Also ask her if she has any friends that might be interested. You will be surprised how many good prospects will be secured this way. When you have sold these new prospects ranges, you will find your first customer a real ally in making your latest sales 100 per cent good. This will be especially true if you give the same service to the customer who buys outright as to the one who buys on trial.

Any sale must embody service to become a permanent transaction.

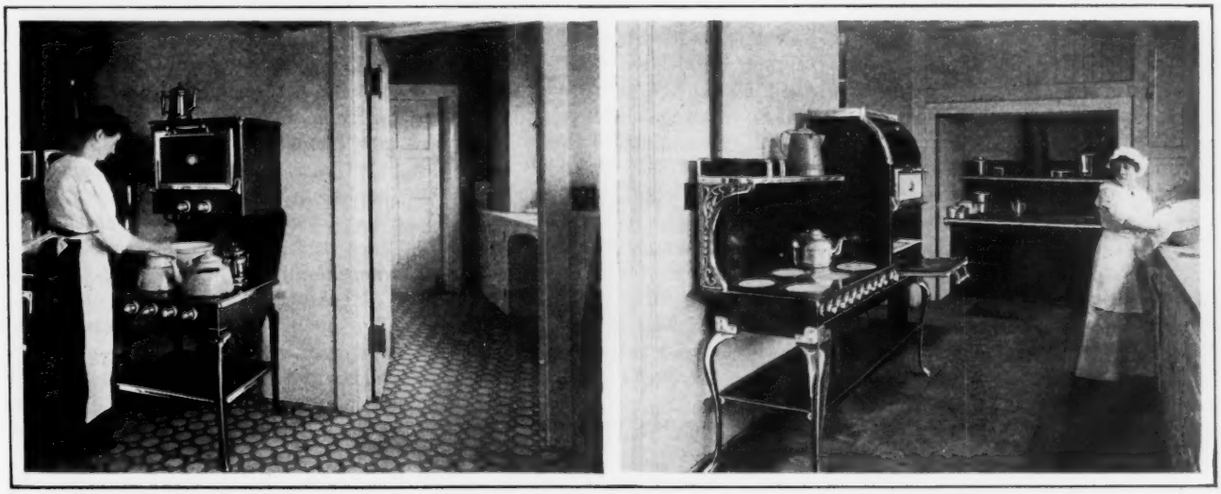
An Opening Wedge for a Wiring Contract

By J. M. WALSH

Scranton (Pa.) Electric Company

Working upon the pet hobby of a difficult prospect will sometimes serve to introduce electric service into his home when logical argument fails utterly.

A man on our list whose hobby is fine poultry, recently installed an extensive burglar-alarm system on his chicken house. The wet batteries on which the system operated proved costly to maintain, and learning this I suggested that he replace them with central-station service and a bell-ringing transformer. The suggestion was carried out and the change was so pleasing to the owner that he eventually substituted even Mazda lamps for the gas mantles in his house.



Electric range instructions for the housewife or maid should be brief and simple; those that will enable her to do her cooking in a general way rather than in a specific manner. Instructions should be prepared from the standpoint of the busy housekeeper instead of from a laboratory engineering point of view.

MEDDLING WITH MANAGEMENT

The Brass Tack Brigade Hears Some Caustic Truths on the Subject of Minding Its Own Business

By FRANK B. RAE, JR.

THE morning meeting of the Combination Gas & Electric Company's commercial department had been in session for some minutes. I forget the subject under discussion, but it had something to do with company policy.

"What this company must do," said Jack Reeves ——

"An' are ye gineral manager av th' company that you should say what the company *must* do?" cut in Micky Daly with caustic sarcasm.

"Micky, you spoke a forkful that time," approved big Jim Lenox, the assistant commercial manager. "Some of you sales snipers around here seem to think you're paid to give advice. I move, Mr. Chairman, that we call off the previous discussion and get down to brass tacks on the subject of selling goods. This morning's report, now—why, I could sell more stuff to a flock of buzzards in the middle of Sahara than you-all sold yesterday in this whole town."

Davis rose, his eyes hard, his mouth grim.

"Jim is right," he said. "This is a matter that has been on my chest for some days. There has been too much meddling in management by the sales force—and too little selling. Maybe I'm to blame. I've allowed you fellows to meet together here and talk over our commercial problems on a broad business basis instead of on the narrow and selfish basis of mere sales. I still think that is the right policy. But some of you have misunderstood the idea. You have, some of you, contracted the disease known as enlarged ego—in plain United States English, you've got a bunch of swelled head—and you're talking and thinking as though you were running the company."

"You've wondered why we fight shy of these whoop-it-up campaigns," said Davis. "They make a splurge in advertising. The salesman gets the wives to sign the orders before they know whether the house is on fire or the husband pinched for larceny. But after the women recover, the stuff begins to come back."

"But," persisted Reeves, whose inept remark had brought down the Chief's criticism, "we're out on the firing line and we see things —"

"Is ut seein' things that you're paid for?" inquired Micky. "For if ut is, I kin direct ye to a hop joint where they deal in stuff that'll make ye see funnier things than ye do now —if so be that's possible, which I misdoubt."

"The thing a salesman wants to see, first of all, is sales—immediate sales. After that he wants to see future sales," said Davis tersely. "But he's got to do more than *see* 'em, he's got to *get* 'em.

"Now, we fellows here all know that it takes several kinds of thinking to run a successful business. We must have executive thinking, and operative thinking. The executive must plan ahead, dream dreams and then reduce dreams to a practical operating basis. The operative must take those dream-plans and make the dreams come true. You fellows are operatives. Don't forget that. It's no part of your job to dream. Your business is to reduce dreams to dollars.

"I'll say one thing more: Half the failures in this world—not only failures in business but personal failures—are the result of messed-up thinking. Too many operatives meddle with executive thinking and some executives never rise above detail thinking. The result is that the men who are supposed to deliver the goods waste time sailing around the blue sky on dream-clouds, and the men who are supposed to have a broad vision and the ability to foresee and plan are buried to the eyes in detail."

* * *

"'TIS a fine an' noble line av conversation ye have exuded, Misther Davis," commented Micky Daly, "but will ye be good enough to climb down outa th' clouds yerself an' tell us, in words av one syllable, jist what yer talkin' about? What I mean is this: we appreciate th' importance av mindin' our own affairs, an' not meddling in th' company management, but what's wrong specifically?"

"I can answer that question," spoke up big Jim. "The one thing that's most wrong right now is the fact that you're not selling your merchandise.

"Take the matter of returned goods. I've been watching the returns for the last month, and it's enough to make a hyena weep. You come in here and report sales—two sweepers, a flock of flats, and two or three new connections. And before you're outa the place the 'phone begins to ring and women call up and tell us they really don't want the stuff.

"You're not selling your goods—

you're leaving 'em in people's houses unsold. You talk a prospect into *accepting* appliances—you're not *selling appliances.*"

"I'll just add a word to that," said Davis. "You fellows have wondered why we have fought shy of these whoop-it-up campaigns. I'll tell you why. I've watched a dozen or more of them where the manufacturer comes in with a couple of campaign live wires and puts on a big sale. They make a splurge in advertising, send out announcements, get in a blond demonstrator who chews gum, take a couple of stiff drinks, and start 'er off. Everybody is on his toes. The salesman goes into a prospect's home on the run, drops a flat-iron or something, gets the wife to sign an order before she knows whether the house is on fire or her husband pinched for larceny, and busts out again like a man in an obstacle race. It takes the woman about a week to recover from her fright, by which time the campaign crew has jumped the town. Then the stuff begins to come back. Why, in one town I know of they sold thirty-eight washing machines on a gas attack like that, and they got back thirty-nine.

"Now, you fellows are beginning to sell that way. You don't make the customer *want* the stuff—you make her *take* it. You're not salesmen, you're a bunch of stick-up men. You think because you 'tag' a woman with an appliance that she's 'it.' And the reason you're doing this is because your mind isn't on the job you're paid for—selling."

"Th' shot come clost, but it nivir touched me," grinned Micky. "You'll have to adjust yer sights a bit, Chief."

"Micky, I suggest that you hunt a bombproof, because here's one that will dust you. Your sales have fallen down. That didn't worry me till I took a little stroll over into your district across the tracks, where I found out the reason. I'll say in advance that you're not the only man to whom this criticism applies. I found out that you're spending a lot of time telling people how good the company is—explaining a lot about our policy and how we've lowered rates and how liberal we are. You've appointed yourselves official explainers, boosters and apologists—and you forget to make sales.

"Now, the day of the 'good fellow' salesman has passed. This business of 'upholding the dignity of the company' and 'keeping customers sweet' and all that sort of bunk defeats itself. Folks soon begin to talk about you as a hot-air shooter and they wonder how we can afford to keep you on the payroll. The answer is, we can't—not unless you sell goods."

"Chief," said Micky, flushing as red as his flaming Irish hair, "I guess you got me that time. 'Tis meself has been spindin' time an' money in bar rooms and tabaccy shops preaching to th' boys about th' grand company we got here. Perhaps, now, I cud have sold more stuff if I'd tinded me job instid av usurping th' prerogatives and conversation av th' ad-man and th' gineral manager and th' board av directors."

"The trouble isn't entirely with you, Micky," answered Davis. "We're all to blame. And the big mistake was that we thought we were doing the right thing. We've been so interested in the company that we forgot about our *jobs.*"

"'Tis well ye spoke of it, now. If we didn't have no jobs, what wud we care about the company?"

And with that Micky tightened his belt, spat upon his hand in the manner of his forefathers, and headed for "acrost th' thracks."

The Value of the Contractor's Small Repair Business

"Every electrical contractor has more or less small repair business, such as electric irons and cords, small motors, appliances, etc.," said C. A. Pierson before the Missouri Electrical Contractors' Association at Kansas City, "and this small repair business should not be overlooked.

"If featured, not only may it add to the contractor's income but it often leads to bigger things. Many a small repair customer becomes a big customer some day. The appliance repair business can be carried on, no matter what the contractor's location is, and if properly handled, is bound to return a good percentage of profit.

"The contractor's electric appliance business can also be made profitable under the proper conditions of a good salesroom and efficient selling help," continued Mr. Pierson. "There are many cases where the service required by the customer extends beyond the guarantee offered by the manufacturer, and where the customer is entitled to a broader guarantee than the manufacturer could give. The retailer must care for this phase of the situation but will be rewarded by the establishment of a substantial and profitable retail appliance business."

The Letter with the Impulse

UNTIL A MAN sits down with pencil in his hand, the writing of a letter to a woman about household applications of electric service does not seem so difficult. Yet out of all the selling letters that we see, how few administer "that impulse," how seldom we read one with a live enthusiasm and say to ourselves when we are through, "By George! That's good!"

Here is an extract from a selling letter sent out recently to 5000 old house-wiring prospects. Just shut your eyes a moment and imagine yourself the woman who is to receive it. There is no preaching, not an eager argument to weary you, no tone of quarrel, but it points a picture that reacts upon your reason. We quote three paragraphs out of the five:

There are women to-day who energetically sweep each room; women who stand over a wash tub and rub, rub, rub; women who fuss over a hot stove on ironing day, to the detriment of their health, their complexions and their dispositions.

There are other women who simply

turn a switch and clean house by the vacuum method in a few moments—long before the sun gets high—and when washday comes turn this task over to the Electric Washing Machine.

There are items in the electrical equipment of the modern home which should be in your home. The matter of comfort is more than a matter of dollars and cents in the value of work done and time saved.

This copy belongs in the "inspiration scrap book" that should be part of the equipment of every contractor and central station sales manager who is selling such electrical merchandise to the home.

Motor-Maintenance Makes Big Money for Contractor

How the Manager of an Electrical Business Originated a Plan that Practically Guarantees Continuous Electric Service to the Factory Owner at a Fixed Monthly Charge

A FEW YEARS AGO the Sieffert Electric Company of Evansville, Ind., started something new as a side-line to its electrical contracting business. Now, with only a few years of development the side-line, which is a motor-maintenance plan, has become almost the main branch of the business. Because the plan has so materially aided his company financially, and because it is something any electrical contractor with enterprise and judgment can use in his business, Frank W. Sieffert, president of the company, consented to tell the readers of ELECTRICAL MERCHANDISING how it works.—THE EDITORS.

"IT was almost by accident," said Mr. Sieffert, "that I happened to get into the electrical business. I was formerly advertising and sales manager for a big patent medicine house in Chicago. From time to time I invested a little money in my brother's electrical contracting business in Evansville. When he died suddenly I came down, as I then thought, to run the business for a few months and to make whatever disposition of it seemed advisable. But the more I studied the proposition the better it looked. So I continued to operate it—and here I am.

"As soon as I got my bearings in the business I began to look for ways to increase the income. It was then I remembered an arrangement our patent medicine house had with an electrical concern in Chicago. I recalled that we paid them what seemed like a lot of money to inspect and maintain our motors. That was a happy thought. The next time I went to Chicago I called on that concern and got copies of their contract forms and tried to learn something about their plan of charging for service. The information about rates, however, they considered secret. So I came back with the contracts and an idea. The idea wouldn't die. It kept me thinking about a motor-maintenance plan until I figured out a system of rates of my own, basing the charges on what seemed to be a fair allowance for the time of my workmen making inspections, a fair allowance for expenses incurred in maintenance and repairs, and a fair allowance of profit for myself. Then I started out to sell the idea.

"I went to several industrial plant owners who were employing motor drive and said, 'My company is prepared to offer you a new and unique kind of service. We will inspect the electrical equipment of your factory at regular periods; we will make all necessary adjustments and repairs to motors and to starting switches; we will absolutely guarantee your motors against burn-out; and can practically guarantee you continuous service from your electrical plant equipment. In return for that service you put my company on your payroll. We get a certain definite sum of money from you each month and there is never any difference in the price. If a motor burns out you pay us no more that month than any other month.'

"Of course the first thing these plant owners wanted to know was how much it would cost. In such a case to determine the cost I would make up a complete list of the motors and their ratings, listing also the driven machines. Against all small motors I would make a charge of from $24 to $36 a year. For all motors between 5 hp. and 200 hp. the price was varied on a sliding scale to a minimum of $1.50 per horsepower per year on units of the larger size. Totaling up this annual charge I would present it divided by twelve—the charge per month. That made the cost look to be less and gave a fair basis of comparison because the plant owner was in reality adding that amount to his payroll. Of course the amount was usually smaller than the salary of one man, so the factory owner could not advance the argument that he could hire a competent workman cheaper to do his own repairing. Furthermore I have a secret belief that my figures usually compared quite favorably with the average electrical repair bill. At any rate several factory owners wanted to contract for the service instantly. And right there is where I played 'Johnny Wise.'

"I said, 'Not so fast. I could not think of taking over your plant without first giving it a thorough inspection and test. I could not maintain your motors on my contract if you are running them at great overloads. Your plant must be in A-1 shape when my maintenance contract goes into force.' The upshot of this usually was a little dickering that ended in my securing the owner's consent to look things over and see what was needed to make the plant shipshape. This I did, noting what immediate repairs were necessary and what changes should be made in motor drives, if any. Quite frequently tests showed that motors were unreasonably overloaded and should be replaced by larger ones.

"When I had an estimate prepared on the cost of making *immediate repairs*, I would submit this to the factory owner. The size of it would usually scare him. But when I pointed out the fact that failure to 'take the stitch in time' would soon mean motor burn-outs, factory delays and all of the expense incident to these failures, I usually carried off an order to make the immediate repairs and a signed maintenance contract to be effective as soon as the repairs were completed. Each maintenance contract gave me, therefore, not only a year's job at keeping up the factory, but an immediate repair job for my shop and my regular repair force. I also had the further advantage of taking over for maintenance only plants that were right to start with.

"When I had by personal effort secured a few contracts I hired a man to solicit business from all factories and large buildings in town, along the same line on which I had been working. I began to systematize the inspection and maintenance end of the business. Two men were regularly employed for this branch of the work. One is a machinist capable of making

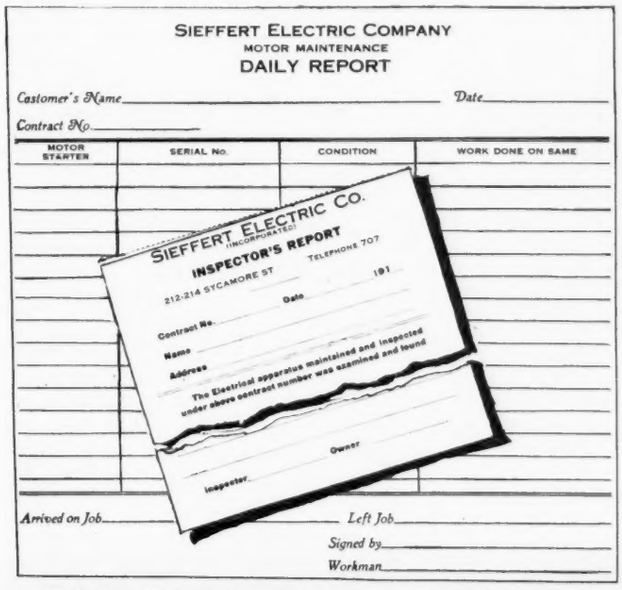
motor repairs and one is an inspector who makes the rounds of all factories and buildings under contract, carefully looking over each installation at least once every two weeks. He watches the motor bearings and the air gaps; he inspects switches and starters; and, what is just as important, he observes the operation of the driven machines to see if anything is wrong with them that might cause them to run heavy and overload the driving motor. Broken gear teeth on driven machines are watched for, and the owner is notified to repair them or forfeit his burnout guarantee on the motor.

"Each time the inspector makes a call he fills out an inspection ticket like the one herewith and before he leaves the premises gets the owner himself or someone in responsible charge to sign it. In this way we are able to make the owners realize that we are giving real service and are fulfilling that clause in our contracts pertaining to periodic inspection. The inspector's reports come to my desk so that I can keep in close touch with conditions in each customer's plant. Daily reports are also made out on each repair job done under the maintenance contract to show the nature of repairs and the amount of time required to do the work. These reports, which are made in triplicate, also serve to indicate general plant conditions and to point out places where improvements in plant equipment will reduce repair bills.

"We also adopt a practice of tacking glaring red placards carrying terse, simple starting instructions near all motor switches. These cards also admonish operators to call the Sieffert Electric Company immediately in case of trouble. Besides being a source of service to our firm in bringing us information regarding machine failures quickly, these cards are also of real advertising value. Many house-wiring contracts coming from factory employees have been traced to the prominence these cards give our firm's name.

"In this manner, by the use of simple forms entailing a minimum of red tape, our motor-maintenance plan has been operated for the last few years. All kinds of factories, office buildings and industrial establishments are now under contract for this form of service. At no time has it been necessary for the firm to regularly employ more than two men to give our customers adequate service. Of course, at times it is necessary to use a part of our shop force when a large motor needs to be repaired; but such conditions are infrequent. With careful cultivation the business has grown until we now have forty-three customers with a total of 1100 hp. in motors, both large and small. Just what these customers pay us in actual dollars and cents I do not care to state publicly; not because they are overcharged, for they all receive full value for their money, but because misconstruction might be put on the figures. I can say, however, that our annual return on this former side line has become an appreciable source of revenue which adds to the company's net earnings a sum which many a high-class sales manager or executive would be proud to claim for his salary.

"Furthermore, the direct financial return is not alone the full benefit we receive. The fact that our firm is on the payroll of these factories and office buildings brings us a great deal of new construction business and has added to our prestige."



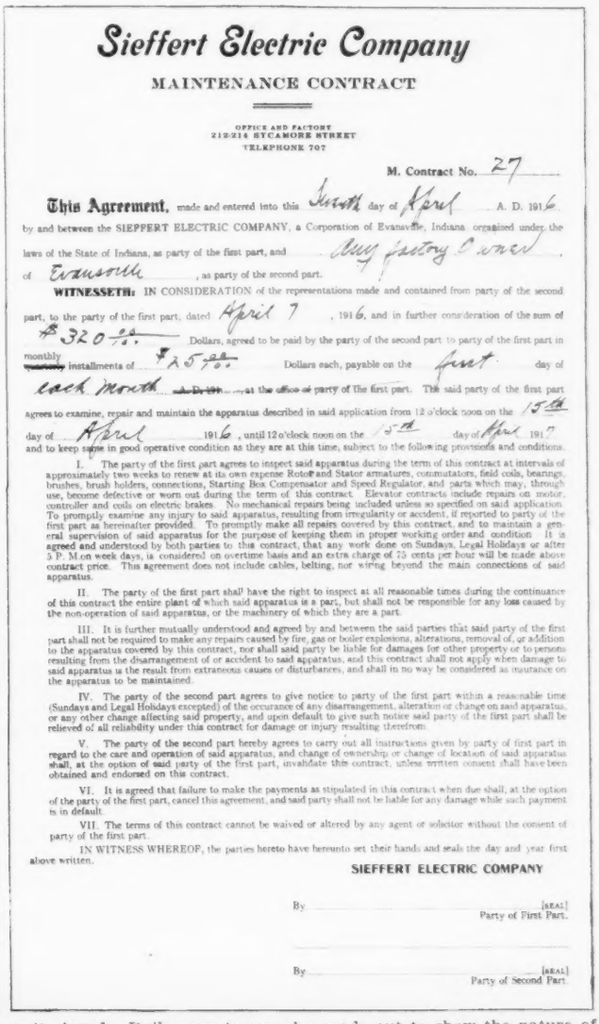
SIEFFERT ELECTRIC COMPANY
MOTOR MAINTENANCE
DAILY REPORT

Customer's Name _____ Date _____
Contract No. _____

MOTOR STARTER	SERIAL No.	CONDITION	WORK DONE ON SAME

SIEFFERT ELECTRIC CO. (INCORPORATED)
INSPECTOR'S REPORT
212-214 SYCAMORE ST TELEPHONE 707
Date 191
Contract No.
Name
Address
The Electrical apparatus maintained and inspected under above contract number was examined and found
Owner
Inspector

Arrived on Job _____ Left Job _____
Signed by _____
Workman _____



Sieffert Electric Company

MAINTENANCE CONTRACT

OFFICE AND FACTORY
212-214 SYCAMORE STREET
TELEPHONE 707

M. Contract No. 27

This Agreement, made and entered into this Seventh day of April A. D. 1916 by and between the SIEFFERT ELECTRIC COMPANY, a Corporation of Evansville, Indiana organized under the laws of the State of Indiana, as party of the first part, and Any factory Owner of Evansville, as party of the second part.

WITNESSETH: IN CONSIDERATION of the representations made and contained from party of the second part, to the party of the first part, dated April 7, 1916, and in further consideration of the sum of $320.00 Dollars, agreed to be paid by the party of the second part to party of the first part in monthly ~~instalments~~ installments of $25.00 Dollars each, payable on the first day of each Month ~~in Dr on~~ at the ~~office of~~ party of the first part. The said party of the first part agrees to examine, repair and maintain the apparatus described in said application from 12 o'clock noon on the 15th day of April 1916, until 12 o'clock noon on the 15th day of April 1917 and to keep same in good operative condition as they are at this time, subject to the following provisions and conditions.

I. The party of the first part agrees to inspect said apparatus during the term of this contract at intervals of approximately two weeks to renew at its own expense Rotor and Stator armatures, commutators, field coils, bearings, brushes, brush holders, connections, Starting Box Compensator and Speed Regulator, and parts which may, through use, become defective or worn out during the term of this contract. Elevator contracts include repairs on motor, controller and coils on electric brakes. No mechanical repairs being included unless so specified on said application. To promptly examine any injury to said apparatus, resulting from irregularity or accident, if reported to party of the first part as hereinafter provided. To promptly make all repairs covered by this contract, and to maintain a general supervision of said apparatus for the purpose of keeping them in proper working order and condition. It is agreed and understood by both parties to this contract, that any work done on Sundays, Legal Holidays or after 5 P. M on week days, is considered on overtime basis and an extra charge of 75 cents per hour will be made above contract price. This agreement does not include cables, belting, nor wiring beyond the main connections of said apparatus.

II. The party of the first part shall have the right to inspect at all reasonable times during the continuance of this contract the entire plant of which said apparatus is a part, but shall not be responsible for any loss caused by the non-operation of said apparatus, or the machinery of which they are a part.

III. It is further mutually understood and agreed by and between the said parties that said party of the first part shall not be required to make any repairs caused by fire, gas or boiler explosions, alterations, removal of, or addition to the apparatus covered by this contract, nor shall said party be liable for damages for other property or to persons resulting from the disarrangement of or accident to said apparatus, and this contract shall not apply when damage to said apparatus is the result from extraneous causes or disturbances, and shall in no way be considered as insurance on the apparatus to be maintained.

IV. The party of the second part agrees to give notice to party of the first part within a reasonable time (Sundays and Legal Holidays excepted) of the occurance of any disarrangement, alteration or change on said apparatus, or any other change affecting said property, and upon default to give such notice said party of the first part shall be relieved of all reliability under this contract for damage or injury resulting therefrom.

V. The party of the second part hereby agrees to carry out all instructions given by party of first part in regard to the care and operation of said apparatus, and change of ownership or change of location of said apparatus shall, at the option of said party of the first part, invalidate this contract, unless written consent shall have been obtained and endorsed on this contract.

VI. It is agreed that failure to make the payments as stipulated in this contract when due shall, at the option of the party of the first part, cancel this agreement, and said party shall not be liable for any damage while such payment is in default.

VII. The terms of this contract cannot be waived or altered by any agent or solicitor without the consent of party of the first part.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first above written.

SIEFFERT ELECTRIC COMPANY

By _____ [SEAL]
Party of First Part.

By _____ [SEAL]
Party of Second Part.

Each time the inspector calls he fills out an inspection ticket and gets it signed. Daily reports are also made out to show the nature of repairs and the amount of time required to do the work. The contract practically guarantees the factory owner continuous electric service at a fixed monthly charge. Before closing a contract the Sieffert company insists on putting the equipment into first-class condition.

An Installment Plan That Invites Cash Payment

Form of Monthly Payment Sales Offer Points Out to the Customer the Cash Settlement Amounts Payable at Any Time, and Amount to Be Saved by Cash Payment of Balance Due

By A. A. LAUGHTON
Manager Athol (Mass.) Gas & Electric Company

NOT infrequently is it found that selling offers made for the exclusive benefit of the customer of modest means cannot be restricted as intended, and, in consequence, they miscarry to some degree.

Such was my experience in the case of offering to the public a rental proposition under which a popular appliance could be rented at an attractive monthly cost. While the response was gratifying in its promptness, yet it was with considerable alarm that I realized that by my rental offer I had succeeded in attracting nearly three well-to-do customers for each one modestly situated.

Needless to say that I had planned to sell outright to the well-to-do man, and in any event did not wish to consume my rental proposition appropriation on this class of customer. The difficulty was that I had not properly realized that the average well-to-do man is constantly on the lookout for opportunities to save his money, and is, therefore, quick to appreciate a good proposition. Probably this is why he has become well-to-do, or is able to remain so.

This experience was uppermost in my mind when I was called upon to develop a general installment payment proposition covering all appliances, which would accomplish two missions:

1. Provide to those of our customers or prospective customers whose means are modest, an attractive installment purchase proposition consistent with their financial condition, and yet under which the company's interests would be properly protected. 2. By design and application to be such as would only appeal to the class of trade mentioned and therefore would not in any way decrease our present cash business.

After some study, the following proposition was produced:

1. A price was assigned to each article of stock—such price being 10 per cent greater than the cash price desired. (All goods sold for cash or sold with the understanding that cash in full would be paid within thirty days, are subject to a 10 per cent discount.)

2. Covering all goods sold under this proposition, an initial payment is required equal to 25 per cent (approximately) of this price—such initial payment to be made before the article is delivered or installed.

3. A monthly payment is required for ten months, equal in amount to one-tenth of the remainder after the amount of the initial payment is subtracted from the amount of the original selling price. This monthly amount is carried on the monthly electric bill. Care is taken to see that the first such monthly bill is not presented to the customer until at least thirty days after the date of the purchase. It should be observed that the customer is given very nearly a year to complete the payment of the appliance purchased.

4. A cash discount of 10 per cent—this being the most important feature of the plan—is permitted (providing all monthly payments then due have been paid) in the event of the customer desiring to anticipate the payment in full of the balance remaining unpaid, and not having yet become due. It should be observed that since 25 per cent of the amount of any purchase has already been paid (this being the amount of the initial payment), the maximum discount possible is 10 per cent of 75 per cent of the original price of the article representing the purchase. The form of sales order employed as shown by the accompanying cut, has a column in which appears the amount of this possible cash discount. Since this amount decreases in size each month

Installment Payment Sales Order. No. _____

Athol Gas & Electric Co., January 11, 1917.

Please deliver at No. 1 Centre St., Athol, Mass., residence of John Doe.

the following:

1-#25 Thor Washing Machine

Date	Monthly Balance Due	Amount Unpaid To Date	Cash Settlement Amount	Possible Saving if Cash is Paid
Mar.1.1917	7.00	70.00	63.00	7.00
Apr.1. "	7.00	63.00	56.70	6.30
May 1. "	7.00	56.00	50.40	5.60
June1. "	7.00	49.00	44.10	4.90
July 1. "	7.00	42.00	37.80	4.20
Aug.1. "	7.00	35.00	31.50	3.50
Sept.1. "	7.00	28.00	25.20	2.80
Oct.1. "	7.00	21.00	18.90	2.10
Nov.1. "	7.00	14.00	12.60	1.40
Dec.1. "	7.00	7.00		

SAMPLE

And in consideration thereof, I agree to pay the sum of Ninety three and 50/100--dollars ($93.50---) as follows: Twenty-three and 50/100-- dollars ($ 23.50-) with this order and thereafter Seven and no/100----- dollars ($ 7.00---------) on the first day of each successive month until the sum of Ninety-three and 50/100--- dollars ($ 93.50---) shall have been paid: or if it shall be desired by me to anticipate payment in full of the "Amount unpaid to date" a 10% rebate for such cash payment will be made provided such cash payment is made on the date upon which the first monthly payment falls due or is made at any time thereafter, and provided also that all monthly payments due at that time have been paid in full so that the Cash Settlement amount will be in accordance with the schedule entered in this order under "Cash Settlement Amount." It is expressly agreed for the aforesaid consideration that the title to the said goods shall remain in or with the above Company until full payment in cash shall have been made as specified above and that in the event of failure to make the payments above specified or any of them as and when due, I am to surrender the said goods to the Company, its agents or assigns, upon demand, and the said Company, its agents or assigns, have and are hereby given full authority to enter upon my premises, or any place where the said goods may be, for the purpose of removing the same without process of law; and that any sum or sums paid by me on account shall be retained by the Company as a reasonable compensation for the use of the goods. I further agree for the aforesaid consideration not to remove the said goods from the premises I now occupy or sell the same without written notice to the Company, and consent received from them. When the said goods have been fully paid for according to the terms of this agreement they shall become my property.

I have read the above and a copy of the same has been furnished to me and no verbal or other agreements have been made contrary or inconsistent with its conditions. No order shall be binding upon the Company unless accepted by its Local Manager.

Salesman _____ Customer _____

Accepted: ATHOL GAS & ELECTRIC COMPANY

By _____ Local Manager

Installment payment sales order which explains to monthly-payment customer the savings which he can make by settling in full for cash at any time during installment period

there exists a constant incentive to anticipate the payment in full of any installment payment proposition as early as possible during its life.

MONTHLY PAYMENTS ARE MADE DIVISIBLE BY 5, 10 OR 25

In actual practice we have not adhered strictly to the initial payment amount being exactly 25 per cent of the price, but have made this initial payment slightly greater or smaller so as to arrive at an initial payment amount which, when subtracted from the amount representing the price, leaves a remainder which is divisible by 10 or 25. The reason for this is to thereby secure a monthly payment of an amount which is divisible by 5, 10 or 25.

In the case of the appliance mentioned on the sample form, reproduced herewith, it will be observed that 25 per cent of $93.50 is $23.375. Subtracting the smaller from the larger amount, the remainder is $70.12. One-tenth of $70.12 equals $7.012.

Therefore, the advantage is obvious of making the initial payment amount $23.50, as has been done, and, as a result, securing an amount representing the monthly payment of a round sum of $7.

HANDLING IS EASY AND ACCURATE WITH 10 AND 25 PERCENTS

After a year's experience with this proposition I can unhesitatingly recommend it without any modification. The per cents involved in its application, being 10 and 25, make for an easy and accurate handling.

In general the public and our employees have found the details simple to understand. The possible discount has been a very popular feature and a large proportion of the sales made under this proposition have been paid before they became due in order that a saving through the discount could be realized.

A careful review of the accounts handled under this proposition since its adoption shows that only those of modest means have taken advantage of it—thus proving that, as desired, we have been successful in its application, and furthermore, that in no way has our cash-paying trade been disturbed. All of our customers who formerly paid cash still settle their bills in that manner, while our list has been increased by a number of profitable installment accounts.

A Hunch for March—To Show How a Sweeper Works

Some of the sweeper manufacturers furnish demonstration bags in which there is a good-sized window of isinglass. By sweeping a little tissue paper confetti into the bag, the operation of the motor keeps the colored paper in motion and thoroughly demonstrates the action of the appliance.

This ever-useful demonstration can be home made at slight expense. A sufficient sheet of isinglass can be bought for a few cents and anyone handy with a needle can insert it into the sweeper bag at the cost of very little time and labor.

A clever variation of the plan is to hide a small lamp in the bag at night and allow the demonstration to work after the window lights are turned off. Better still, arrange the window lights and bag light on a simple flasher so that when the window is illuminated the bag is dark and vice versa. The alternation of the light and dark window attracts attention and the action of the colored paper in the bag makes a catchy display when seen in the semi-dark.

The Autobiog of a Fly

Wherein It Is Gently Hinted That While a Show Window Makes a Swell Fly Cemetery, Its Real Purpose Is to Sell Goods

By C. L. FUNNELL

I AM NOT an ordinary fly. I am an electrical contracting fly. My birthplace was in the show window of the Standstill Electric Company.

Father and mother lived under a rusty doorbell, and I used to play hide-and-seek with my 763 brothers and sisters, all over old coils of wire and dead batteries the Boss chucked in the window.

Then I decided to leave home, and one day I flew out the door to see the world. After months of wandering I got lonesome for the old home. One morning while wiping my third left-hand foot on a glass window I saw some familiar electrical appliances inside. I flew in and looked around. It wasn't our old place at all. I couldn't find one of the family around, and there wasn't a rusty bell in sight.

Everything in the window was all shined up, and people outside kept stopping to look in. I felt very self-conscious at first, but I soon got used to it.

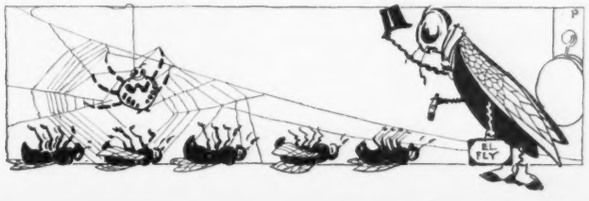
People were always coming into the place and buying things. Someone said the owner had a new car, and owned his house. One of the clerks said he had the Pep, which is probably some sort of disease.

Something was certainly the matter with him. The first day I was there they took everything out of the window and washed the glass. I could see through it easily. Then they chased me with a swatter. I felt awfully unnecessary. When they put a lot of new stuff in the window I flew down from the ceiling to look it over.

They had a big fan in each side, and just as I got down they started them up. That was entirely too much for me. I blew right out of the place.

After a while I found a window that looked familiar and went inside. At last! It was home. Everything was just about as I had left it. Eddie, the Spider, had built in elevators to the principal points on the ceiling, but the old home doorbell was in the same place.

Father and Mother lay where they had died months before. Two or three hundred of my brothers had passed away, too, but the rest of the family remembered me. They told me that the Boss of the Standstill Company still lived in a rented house, still drove his old horse and never disturbed us in our window, so I was happy. No more of these Pep-infested places for mine—there's nothing like coming back home to die!



STICKING TO PRICE AND CODE

How a Contractor Secured a Garage Wiring Job with an Estimate Based on Standard Workmanship and a Fair Price

By J. W. HOOLEY

"HERE comes Bill Wescott," said one of the members of the State Electrical Contractors' Association. It was almost time for the annual meeting to be called to order and the men were gathered about the room in little groups, fulfilling one of the main purposes of their organization by finding out what good fellows their competitors were.

"I suppose Bill will walk right by us," remarked another of the boys. "He just landed the electrical work on Brown Brothers' new garage."

"Oh, a little thing like that won't make Bill overlook his friends," Tom Collins assured them.

"He lands plenty of jobs over a bunch of lower bids. They say he was high man on this garage job, too. He never cuts his price."

"Oh, no!" remarked Fred Farnsworth, who suffered from occasional sarcasm in spite of the beneficial efforts of his associates. "He's a regular Christmas razor—never cut in his life!"

"Tell you what I'll do," suggested Collins good-naturedly. "You know at the end of the regular business the chairman asks for suggestions 'for the good of the association.' Well, I'm going to make a motion that Bill be asked to tell us how he landed the Brown garage job."

"I'll second it," promised an eager associate. "There'll be some lessons in it for us."

"And further," smiled Collins, "if we find that Bill cut his price I'll buy Friend Farnsworth a dinner or a hat; otherwise he can do the same for me."

"Right," agreed the doubter briefly.

* * *

"GENTLEMEN," began Wescott when the chairman had awarded him the floor, "I'll be very glad to tell you about that garage job. We nearly lost it by holding out for the best workmanship, but in the end that was just what closed the deal for us.

"It was a rush job and the other bids were received when I asked for a chance to submit figures. That was 3 o'clock on Wednesday, and they promised to consider my bid provided it was in by 11 o'clock the following morning.

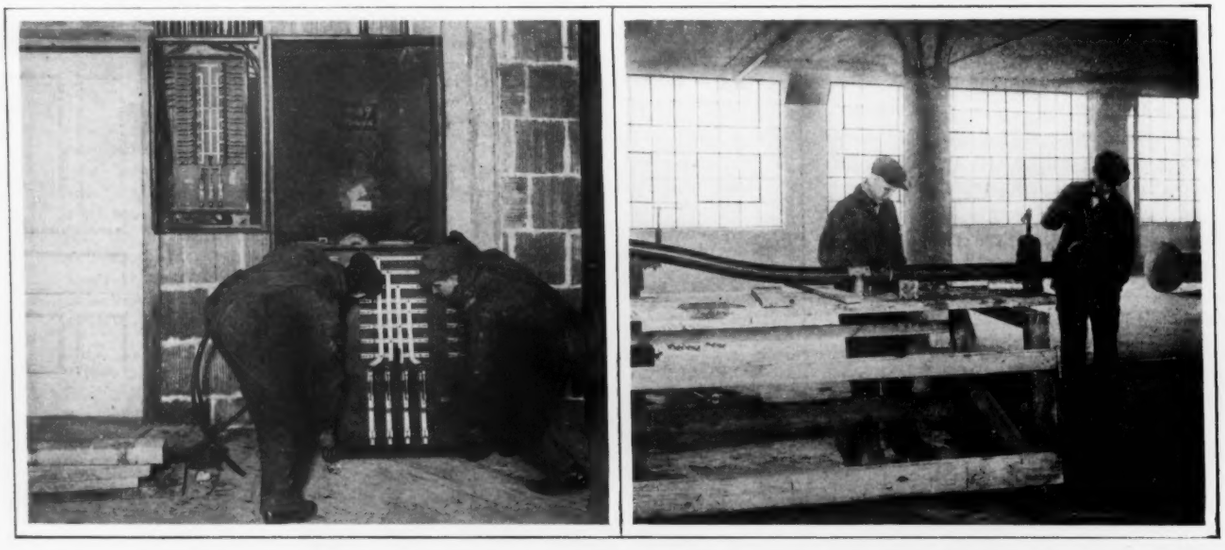
"It was nearer midnight than dinner-time when I left the office that night, but I had my figures ready, and the next morning I took them over to Mr. Brown.

"'You're prompt with your estimate, anyway,' he remarked, looking it over. When he struck my total he laid the sheets on the desk.

"'Sorry,' he said, 'but you're high man. I like the way you've laid out your figures, but they're too high.'

"'Of course you can only give that job to one of us,' I told him. 'Naturally you want to give it to the man who gives you the best value for your money, and I want to show you where I stand.

"'In the first place there are sixty wall plugs shown on the plans and the specifications call for the ordinary base receptacles to be set 8 in. from the floor. That's a violation of the code, which states that all outlets and panels shall be set with a clearance of 4 ft. between the finished floor line and the outlet. The ordinary base receptacles will not be passed for a garage job, either. You must install a special quick-break two-piece plug so that if the extension cord were accidentally caught or pulled, the connection would be broken immediately, without the chance of breaking the cord, and causing a short-circuit. A spark would be very dangerous in a garage as it might



For garage work all panels and outlets must be 4 ft. above the finished floor line. Separate lighting and power switchboards were installed. On the left the lighting panel is shown installed and the power panel is being lifted into place. By using a modern pipe threading tool one man is able to thread 2.5 in. pipe with ease, while his helper saves valuable time by getting fittings ready to mount.

Scale 1/8" = 1 Ft. Architect R. Adams

ESTIMATE

Sheet No. 1

Name Brown Bros. Garage

Est. No. 536

	FLOOR	CEILING	SIDE	SW.	RECPT.	CKTS.	LT. PR PANEL	CONDUIT
	3	15	—	6	20	6	11	9.80
	〃	15	—	6	20	6	1	9.80
	1	15	—	6	20	6	1	9.80
	Base	15	〃	3	—	4	1	4.00
	TOTAL	66	〃	21	60	22	41	33.40

	ITEM	DESCRIPTION	MATERIAL	LABOR
	149	Outlet Boxes .15/.10	22.35	14.90
	149	" Covers .10/.10	14.90	14.90
	65	Fixture studs .04/.04	2.72	2.72
	21	d. P. Switches & Plates .25/.25	1.47.0	5.25
	60	〃 Duplex Receptacles .75/.25	45.00	15.00
	300	2 × 4 × 3 .05 —	15.00	—
	3400	ft. 1/2" conduit .06/.04	204.00	136.00
	3500	ft. #14 duplex .03/.01	114.00	35.00
	60	ft. #14 Connecticut Cord .07/.04	4.20	2.40
			436.37	258.77

Sheet No. 1 lists the circuit work, with its wire and fittings

ESTIMATE

Sheet No. 2

Name Brown Bros. Garage Est. No. 536

	ITEM	QUANTITY	DESCRIPTION	MATERIAL	LABOR
	Main Light	100	ft. 1½" conduit .19/.15	19.00	15.00
	〃	3	1½" Elbows .30 —	9.00	—
	〃	10	2 × 3 .12 —	1.20	—
	〃	1	End fitting .25/.25	.25	.25
	〃	330	ft. #4 Rd .21/.03	69.30	9.90
	House Pump	30	ft. 1¼" conduit .17/.12	5.10	3.60
	〃	2	Elb .25 —	.50	—
	〃	4	End fitting .100/.25	4.00	1.00
	〃	80	ft. #4 Rd .12/.03	9.60	2.40
	Main Power	100	ft. 2" conduit .20/.15	20.00	15.00
	〃	2	Elbows .52 —	1.04	—
	〃	2	2 × 3 .15 —	.30	—
	〃	220	ft. 1/0 Rc .27/.03	65.40	6.60
	Elevator	100	ft. 1½" Conduit .19/.15	19.00	15.00
	〃	2	Elbows .30 —	.60	—
	〃	2	End fittings .25/.25	.50	.50
	〃	220	ft. #1 Rc .21/.03	46.20	6.60
			allow for hangers & C	20.00	—
				283.29	76.85

Sheet No. 2 covers the feeders and conduit

ignite gasoline and the danger is minimized by keeping all outlets high above the floor.

" 'The same thing applies to all panels and you can easily see that the raising of all plugs and panels to this height will require more conduit, wire and labor.'

"I told him that off-hand I supposed this would make a difference of about $300 in the cost, but that the job would not pass as laid out.

" 'That's funny,' he said. 'No one else spoke of this.'

"I had my code with me and soon convinced him that I was right.

" 'Three hundred dollars is a lot of money,' said Mr. Brown, 'and as it happens that is about the difference in the bids. Suppose we look over those estimate sheets again.'

" 'Fine!' I agreed. 'Sheet No. 1 is for the circuit work, sheet No. 2 covers the feeders, and the totals are itemized on No. 3. On those three sheets you will find exactly how the cost is distributed and what you are paying on each part of the job both for labor and for material.'

"Mr. Brown studied those sheets for a short time, and then asked about my overhead charge of 20 per cent. 'Isn't that rather high for a contracting business?' he inquired.

" 'For our particular firm 20 per cent is neither too high nor too low,' I told him. 'We keep very accurate records and for the last four years that has been our average cost of doing business.'

"After checking over a few more items on his pad he seemed satisfied and gave me the job. That's the story. It has always paid me to do a job right, and insist on a fair price for the work, and I hope I have made the rest of you see it that way."

* * *

FARNSWORTH turned to Collins with a somewhat sheepish smile, "You win," he admitted.

"All right," grinned Collins," "I'll take a Stetson."

ESTIMATE

TOTAL

Sheet No. 3

Name Brown Bros. Garage Est. No. 536

	ITEM	QUANTITY	DESCRIPTION	MATERIAL	LABOR
			Sheet 1 — Circuit Work	436.37	258.77
			2 — Mains & Feeders	258.20	76.85
			1 Main Switch Board	165.00	35.00
			1 Power Panel 4 Ckt.	35.00	10.00
			1 Light Panel-24 Ckts	60.00	20.00
			2 Motor Switches	15.00	7.00
			66 Ceiling fixtures #13.21	19.50	30.00
			Rubber tape, Ext.	1.00	—
			Certificate	1.00	—
			testing	10.00	—
				1,235.07	418.62
				418.62	
				1,653.69	
			Overhead - 20%	330.74	
				1,984.43	
			Profit - 10%	198.44	
				2,182.87	
			Bid $2270.00		

The totals are itemized on sheet No. 3. Here the job is summed up, overhead and profit entered and the final bid shown

Idealism in Business

A certain man in the financial district of New York has his offices furnished like a series of luxurious libraries. Rich tapestries, priceless oriental rugs, a wonderful old clock, grills and railings from some Italian church — the whole effect is that of a very rich man's home.

When asked why he fitted his place of business in this manner he replied that he spent fully half his waking hours in those offices and that he wanted there to surround himself with the sort of furnishings he liked—the sort of furnishings he had in his home.

"But," protested an acquaintance, "this is a *business* office." "Well, what of it?" he replied. "Is there any reason why business should be sordid, ugly and cold? I believe that, so far as possible, one should carry the same ideals into business life as in private life."

There is a hint here worth thinking about. We may not all agree that business equipment should be patterned after our home furnishings, but it seems very probable that it would be much more enjoyable and much less arduous if we all maintained a more human, a less cold-blooded attitude during that portion of the day devoted to business.

How a Department Store Analyzes Its Customers' Needs

A Buyer's Experience in Selecting an Electric Vacuum Cleaner in the Store of a Non-Electrical Merchant

By L. C. SPAKE

JOHN and his wife Mary—a young couple—went into Chicago's greatest department store to look for a vacuum cleaner.

"Vacuum cleaner?" asked John of the floorwalker.

"Ninth floor, north," was the courteous reply.

"Want to see a vacuum cleaner? Certainly; glad to show them to you. Come right in and be seated," said the salesman, indicating a comfortable bench arranged to fence off a space which constituted the cleaner department. Then he started to sell a cleaner.

"Now, we have two general styles of cleaners. This type is 100 per cent vacuum cleaner. This other type is 25 per cent vacuum cleaner and 75 per cent carpet sweeper. It has both a brush and a fan in it. The brush (showing it as the machine was turned over on a table) revolves at the rate of 4000 times a minute, and enables this machine to pick up thread, pins and fine cotton that might be hard to get by pure vacuum."

Then the salesman showed how each machine was started and stopped and deftly transferred the handle of one to Mary to show her how easily it could be pushed. When she had tried both of them the salesman asked, "What sized house do you live in?"

"Four-room apartment," was the answer.

The information seemed to bring the salesman to a decision. He tore up a piece of paper, scattered it on the floor and showed how well the 100 per cent vacuum machine could pick up such small bits of refuse, getting Mary to try the cleaner again on this material.

The conversation drifted back, however, to the combination cleaner and sweeper, because John, who could appreciate mechanism, recognized the great sweeping efficiency of that machine.

"Now I will show you something about this machine that proves something and at the same time does not prove something." So saying, the salesman dusted white powder on an 8-in. by 14-in. piece of Brussels carpet attached to a wire frame for easy handling. He took the brush belt off the machine and started the fan with the machine upside down. Then he moved the carpet with the dust on top of it over the nozzle of the machine to show that the vacuum would really pull the dust through the carpet. The process, however, was a slow one. Then he repeated the stunt with the brush and fan both in action. The difference in the speed of removing the dust through the carpet was very noticeable.

"It sure is powerful with that brush in action," said John.

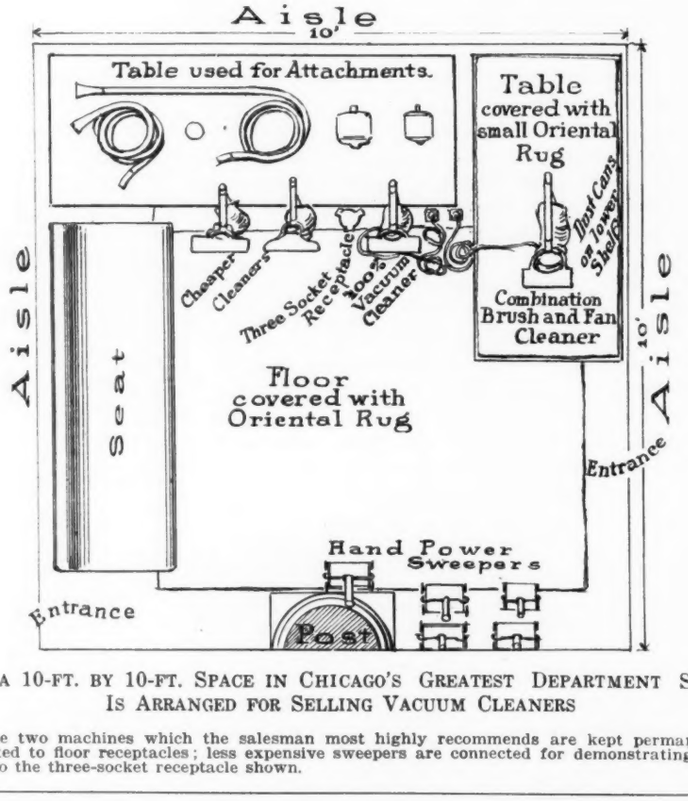
"Just to show you how powerful it really is," said the salesman as he turned the machine right side up again, "I'll show you another stunt. Put a nickel or a dime on the table here."

John put down the nickel on the table rug; the salesman starting the machine with its nozzle 1 ft. from the nickel, showed how the brush, making the carpet actually vibrate, moved the nickel to the machine. The stunt in itself was amusing and was made more so by the salesman's half-joking remark that if John became stingy Mary might run the machine over his money pocket.

Having established, through the agency of this pleasantry, a somewhat closer personal contact, the salesman was able without offense to get another and more personal piece of information he had been seeking.

"Are there any children at your house?" he asked. The answer was no, but he went ahead with a little demonstration designed to show how the brush machine took up pins, even though they were stuck into the carpet.

When this was finished he turned again to the 100 per cent vacuum cleaner. "For your conditions this is the machine that I would recommend," said the salesman.



HOW A 10-FT. BY 10-FT. SPACE IN CHICAGO'S GREATEST DEPARTMENT STORE IS ARRANGED FOR SELLING VACUUM CLEANERS

The two machines which the salesman most highly recommends are kept permanently connected to floor receptacles; less expensive sweepers are connected for demonstrating purposes to the three-socket receptacle shown.

"What are the prices of the two machines?" asked John.

"Thirty-four dollars for the 100 per cent vacuum machine and $56 for the combination vacuum and sweeper."

"Why, then, do you recommend the cheaper machine?" John asked.

"Because I honestly believe that for a family with four rooms and no children the $34 machine will pick up any dirt that comes into the house. You don't have a great amount of lint and such dirt as I have been using on your floor, do you? Even if you do have some of it, there is a brush attachment for the $34 machine." He showed how this brush was attached and how it worked.

"But have you no cheaper machines?" asked the economical Mary.

"Yes, but I do not care to show them. When I sell them they disappoint two people—the customer and me. They always come back." Then to prove his point he showed how a cheaper machine, which he had for the purpose, vibrated and sang "like a threshing machine" in comparison to the $34 sweeper.

Then he touched lightly on the many attachments and stated that if John bought the machine a demonstrator would come out with it direct from the manufacturer. "We do not send them from here because we do not keep a stock."

"Will you send one out on trial?" asked John.

"Have you a charge account?" the salesman countered, and when he received an affirmative reply he offered to send out both machines for seven or eight days. "Might as well try them," he said. "Even if you don't keep them you will at least get your house cleaned. Better let me send one out."

The young couple, who were a trifle conscientious, demurred. They disliked to have the machines sent out without knowing that they would buy. They decided to look in at a few other places before purchasing so expensive a device. But once outside the store with the salesman's card in hand, John voiced the opinion that the salesman's recommendation, based on the facts that there were but four rooms and there were no children, was entirely honest.

He believed the salesman had *accurately* analyzed Mary's home needs and had offered a machine to fit them *entirely* and *economically*. The salesman's apparent honest interest won John's and Mary's confidence. Confidence made the foundation for a sale. They laughed over the salesman's joke about extracting coin from John, and without "looking elsewhere" retraced their steps to Chicago's greatest store and accepted the salesman's advice on the $34 machine.

Oiling the Wheels of the Organization

Good Spirit and Good Ideas Come from Weekly Meetings of Contractor, Foremen and Men

IT was 6 o'clock. An electrical contractor and his visitor were sitting in the contractor's office. The contractor's foreman appeared at the door and said, "The boys are out here now. Do you want to see them?"

"Sure," said the contractor, and then he added to the visitor, "Come on out in the back room. I'm going to talk a few minutes to my wiremen. I make a practice of talking with them about once every week or so."

The men were already there. Some were seated on boxes of material and the rest were standing in a group. When the "big boss" walked in he stepped up into the group so that the men were facing him in a semi-circle. He began his talk by stating that the company's business since it had moved into its new location was progressing satisfactorily. He told the men of the responsibility each of them should feel as the company's representative on the customers' premises; called attention to the value of the workman who is able to please the customer; pointed out that a wireman with muddy shoes walking through a lady's house was not a good advertisement for the company's ability to do good clean work; and summed up by stating that the electrical contracting company's ability to make a reputation lay as much with its workmen as with its department heads and president. He admonished them to keep this in mind when talking to people in whose houses and places of business they were working. Then he asked for suggestions for the good of the service.

One man said the stock-keeper ought to have all material for a job ready for the crew in the morning. There was ten minutes' discussion as to how this should be done. Finally it was decided that steel boxes of a size that can be conveniently loaded into a wagon should be made and used to contain the material for each job. The stock-keeper was to have these boxes filled and ready for loading into the wagon at 7 o'clock each morning. Two other suggestions of minor importance were referred to the foreman to work out.

Upon returning to his office the contractor said, "That sort of thing pays. I have to keep it up, of course, because workmen change jobs. But in the long run I find that it oils the wheels of the organization. You can see for yourself that those steel boxes, besides effecting a saving in time, are going to prevent what might have developed into a scrap between the wiremen and the store-keeper.

"Sometimes when a man has a little grouch stowed away under his skin it can be cured completely by letting him air it in the right way."

Educating the Owner of a Dead Sign

By R. B. ALEXANDER
Texas Power & Light Company, Waco, Tex.

One of my friends owns a cigar store which he advertises with an electric sign. Recently his lamps were so far gone that the sign looked like an ad. for a Chinese restaurant.

To give him a lesson, I took one of my business cards, bit the ends, scraped off a couple of the engraved letters, and added a few finger prints for luck. Then I went around to his store and presented the card.

"Ed," I asked him, "what would you think of a stranger who presented a card like this?"

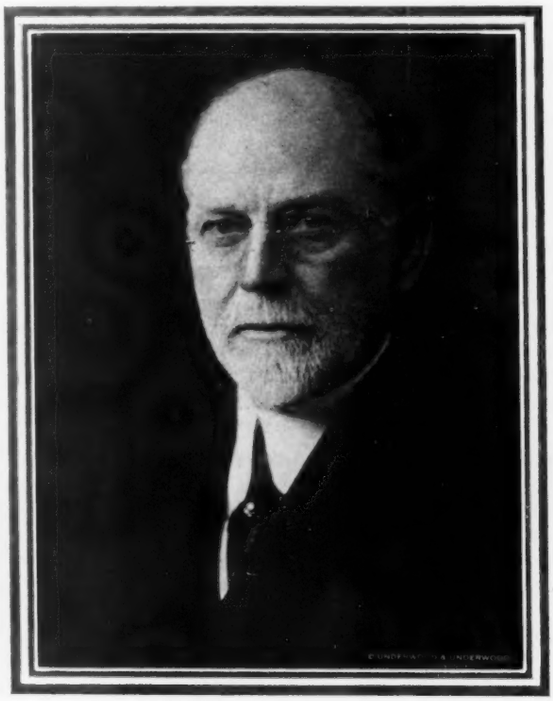
He told me in no uncertain terms.

"Well," I remarked, "that is just what people think of you for displaying that half-burned-out electric sign of yours to every passerby."

He bought a new set of lamps complete.

The McGraw-Hill Publishing Company and "Electrical Merchandising"

THE McGraw-Hill Publishing Company, Inc., just formed by the consolidation of the McGraw and Hill publishing companies, thereby acquires ELECTRICAL MERCHANDISING, the *Electrical World, Electric Railway Journal, Engineering Record, Metallurgical & Chemical Engineering, The Contractor, American Machinist, Power, Engineering News, Engineering & Mining Journal* and *Coal Age*, each the leader in its field. The new organization, therefore, under the guidance of James H. McGraw, its president, becomes the dominating influence in American technical as well as electrical journalism.



JAMES H. McGRAW

Founder and head of McGraw Publishing Company, who becomes president of the new McGraw-Hill Publishing Company, Inc., formed to extend and strengthen the influence of great electrical, engineering and business journals, leaders in their fields, creative workers for industrial welfare and prosperity.

PRINCIPLES OF SERVICE

Readers of ELECTRICAL MERCHANDISING should know the principles which have animated James H. McGraw throughout his long and successful career as a publisher and which have been instilled into the minds of everyone connected with the organization. These principles, which become the heritage of the new company, have also pervaded the Hill organization and may be referred to as the decalogue of journalistic practice:

1. To consider, first, the interests of the subscriber.
2. To subscribe to and work for truth and honesty in all departments.
3. To eliminate, in so far as possible, personal opinion from news columns, but to be a leader of thought in editorials, and to make criticisms constructive.
4. To refuse to publish "puffs," free reading notices or paid "write-ups"; to keep reading columns independent of advertising considerations, and to measure all news by this standard: "Is it real news?"
5. To decline any advertisement which has a tendency to mislead or which does not conform to business integrity.
6. To solicit subscriptions and advertising solely upon the merits of the publication.
7. To supply advertisers with full information regarding character and extent of circulation, including detailed circulation statements subject to authentic verification.
8. To co-operate with all organizations and individuals engaged in creative advertising work.
9. To avoid unfair competition.
10. To determine what is the highest and largest function of the field which is served, and then to strive in every legitimate way within the means of the organization to promote that function.

Although Mr. McGraw has been the active head and publisher of the *Electric Railway Journal* since 1888, his connection with the other branches of the electrical industry dates from 1896, when he purchased *Electrical Industries* which was renamed the *American Electrician* and issued as a monthly publication devoted to electrical engineering. Three years later he acquired the *Electrical World* and the *Electrical Engineer*, the two leading electrical weeklies, and consolidated them into the *Electrical World & Engineer*. In 1906 the *American Electrician* and the *Electrical World & Engineer* were combined into the present *Electrical World*.

PUBLICATION OF ELECTRICAL MERCHANDISING

Last year *Electrical Merchandize & Selling Electricity* was purchased and has since been issued with broadened purposes under the name of ELECTRICAL MERCHANDISING. Last month the *Lighting Journal* was acquired by the McGraw company, and in the issue now in the reader's hands the *Lighting Journal's* practical features on lighting sales and installations are incorporated in ELECTRICAL MERCHANDISING. The *Electrical World* will continue to be the great weekly of the electrical field, being edited for the technically trained and professional electrical engineers, the managers and operators of electrical public utilities and large industrial establishments, electrical manufacturers, jobbers, etc. ELECTRICAL MERCHANDISING, on the other hand, will serve, monthly, the increasingly important selling side of the industry, including electrical dealers, contractors and commercial men engaged in the exploitation and sale of electrical appliances and electric service.

All the traditions and aspirations of both the Hill and McGraw organizations fall as a heritage to the new publishing company, and inasmuch as the personnel of the two organizations will remain intact, the service to the industry will be greatly improved through the advice and counsel of the greater editorial and publishing organization working to serve the subscriber and reader.

Electrical Merchandising
The Monthly Magazine of the Electrical Trade

Volume 17—March, 1917—Number 3

PUBLISHED BY McGRAW-HILL PUBLISHING COMPANY, INC., NEW YORK

Who Knows the Art of Cookery?

THE American housewife has known how to cook for a long time and she is proud of it. When the electric range was still looked upon as a scientific, but impractical novelty she was producing cookery that upset the bachelor's theories of single blessedness and made her menfolks spell "Home" with a capital "H."

It is not unnatural, then, for her to feel some resentment if the mere man who sells her an electric range undertakes to lay down a system of rules and time schedules for her to follow in her food preparation. The job of teaching her to use her new electric range efficiently is as important as landing her order originally, but the tactful salesman-demonstrator will do his instructing by leading her to draw her own conclusions, rather than by forcing ready-made ideas upon her.

The Stage Is Set

THE N. E. L. A. co-ordinate advertising campaign schedule says—"Electrify the sewing machine in April"—and yet, the average local man has never looked upon the sewing machine as a very thrilling prospect. But just consider this—that it is estimated that there are some 15,000,000 sewing machines in use in the homes of these United States to-day—which means about 3000 in every city of 20,000 population—or how many in your town? It is a man-size opportunity.

Right now—this year—when men with limousines cannot afford potatoes, there is a pressure for economy that throws the limelight on the sewing machine and bids each woman ply her needle. It sets the stage for the electrical man and his new portable sewing outfit. So lay your plans at once to seek out every owner of a pedal sewing machine, next month, and put a lot more little motors on the lines.

Use Your Evidence

EVERY contractor has ready and available for use a most convincing lot of evidence in the jobs that he has done. And he should use it more in getting business.

Jimmying your way into a new account is not always an easy job, and it helps to have not only arguments but evidence. There is no better proof of competence than to run the prospect over in your little car to take a look at that job you have just completed in Mr. What's-His-Name's plant. "It will only take ten minutes to run down there and the car is at the door. So grab your hat. We'll talk about it as we go."

That kind of salesmanship will get your business, will build up your reputation for good work done, and will please your present customers as well. For there are few men who are not proud of their establishment, and do not take it as a compliment when you bring in people to look at their "model installation," whether it be motors or just wiring.

Loyalty Must Be Blind

IT is generally believed that business and poetry have nothing in common, yet when Tennyson wrote "The Charge of the Light Brigade" he committed to paper the most vital lesson a business employee can learn—the lesson of blind, blithe loyalty.

No commercial organization can live in which loyalty is lacking; none can largely succeed in which it is lukewarm.

The man who accepts pay must give more than his time; more than his intelligence; he must give also his heart. The boss may blunder, but the right kind of employee goes ahead anyway, doing the best he can.

Clinching the Orders

PLAIN English sells goods. The hook of convincing argument often bends under the bait of too technical language. Eliminate the vocabulary of the laboratory and drafting room. Your victim enjoys a mental holiday as much as you do.

The purchaser asks two questions:

"Is this what I require?"

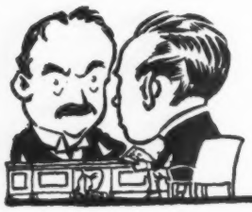
"What is the price?"

If a salesman can answer the first question as briefly and as convincingly as the second, the sale is made. But if he inflicts a digest of everything that's happened since Franklin flew his kite, the purchaser yawns a little less widely than the inviting chasm of lost sales.

Carry a *reason* for every direct statement you make—as you would a club in a snake country, ready for instant use. "Because" is an argument that needs support. It is a handy little engine to start a train of argument with, but the rusty cars behind the engine are the cars that haul the freight.

And when a very tired purchasing agent smiles at you at 4 p. m., watch the smile. It may not be real. A rattlesnake wags his tail faster than good old Ponto, but he uses a different sign language.

IDEAS FOR THE MAN WHO SELLS



Plans, Schemes and Methods to Increase Sales of Electrical Goods

The Electric Vehicle for the Business Man

In one of its ads in the newspapers this month the Cleveland Electric Illuminating Company made an appeal for the use of electric passenger cars

A Man's Car

Not everybody realizes that the rapid strides taken in Electric car construction make the Electric car of today greatly improved and vastly different from the Electric car of a few years back.

So as yet, of course, there are some men who still regard the electric powered automobile as merely a woman's car. But they are men who have not yet ridden in a thoroughly modern Electric automobile.

As a man who keeps abreast of the times, you will want to arrange for a ride in a modern Electric. Any Electric car dealer will respond to your request.

"Illuminating Service"

assures Electric car owners of a continuous and uniform supply of current for the proper charging of batteries which enables the utmost enjoyment of their Electric cars.

"Not merely Electric Light but also Illuminating Service"

THE ILLUMINATING COMPANY

ILLUMINATING BUILDING PUBLIC SQUARE

In Cleveland the lighting company believes in the electric as a man's car, and says so in its ads.

on the argument that the modern electric car is a man's car, as well as a woman's. The modern vehicle, it is pointed out, is built on different lines from those of a few years ago, and the car of to-day is well fitted for the business man's use.

Selling Heating Pads by Explaining Their Use

According to T. I. Jones, general sales agent of the Edison Electric Illuminating Company of Brooklyn, N. Y., the sales of electrical appliances may be effectively "jacked up" by teaching the public how they are used and what advantages the electrical goods have over less modern devices.

In putting on its sale of heating pads this year, the Brooklyn company believed that while the old hot-water bottle has many good points, the heating pad has the same advantages with none of the unpleasant conditions such as "cooling off" and "leakage."

In order that these facts could be brought to the attention of the customer, certain mornings were set aside in which the lighting salesmen devoted their entire time and effort to straight house-to-house canvassing on heating pads. The results justified the effort and served to show the possibilities of this method of canvassing.

Each man carried with him one, two or even three pads, demonstrating them wherever possible and in some cases taking the order and leaving the pad. Most of the orders were turned in to be delivered—thus insuring a fresh pad to each customer.

The scheme worked so well that it will be made a regular part of the salesmen's work in connection with sales of appliances that are little known to the general public.

Advertise Your Customers

Both central stations and electrical contractors can occasionally use their windows to good advantage by installing displays of their customers' goods. This plan has been used by the Edison Electric Illuminating Company at Brockton, the Hartford Electric Light company and others.

The idea is to take the merchandise of a customer—either a merchant or manufacturer—and display it in connection with the fact that electric service or electrical equipment has been supplied by the owner of the window. The thing to be avoided is the error of making such displays wholly non-electrical. Show a manufacturer's product and near it a motor with the inscription, "These shows were made with Buzz-Fast Motors; we sell them." Or show a merchant's goods with a display of daylight lamps and tell the public, "You can match colors in Jones' store because he uses our Tru-Tu-Nature Lights." Whenever the plan is used cleverly it makes a hit with both the customer and the public, and strengthens the idea that the central station is ready to work with the local merchant.

Featuring Multiple-Outlet Plug with Sewing-Machine Motor

The Philadelphia Electric Company not long ago featured a sewing machine window display, in which particular attention was directed to a three-in-one socket, which supplied the current for a light in the room, an especially shaded lamp for sewing, and power to run a sewing machine.

The window was floored with dark green velvet, on which were scattered a number of oak leaves, and banked with oak branches of red and bronze. In the center was a sewing machine with motor attachment, near it on a steel standard an electric bulb with a green shade, while back near the socket was an incandescent light with white shade, a card suggesting: "The ideal electrical combination—Light for the room, light for your work, and power for the machine, all from one socket." Recognizing the convenience of such an accessory, many passersby stopped to ask the price and to buy.

March 17—A Noble Day for Using

Green Dollar Bills

Many of our readers whose $ IDEAS have enhanced these pages are going to celebrate on St. Patrick's Day with the verdant products of their good hunches.

If you have not already attained fame through the authorship of a $ IDEA, please consider this as a personal invitation to take the important step at once.

Cord Exchange Keeps Electric Irons in Service

Every time the cord on an electric iron fails it means one less appliance for the day load of the local central station. In order to help retain irons in service the Harrisburg (Pa.) Light & Power Company now keeps a number of flatiron cords on hand. When a customer brings in a cord needing repairs he is given a new one in its place. The damaged cord is then promptly repaired and put back in the exchange cord stock. The plan not only makes for better service to the customer, but it also conserves revenue for the company.

Complete Cards on Power Customers

Cards like the one reproduced herewith are on file in the sales office of the Northern Indiana Gas & Electric Company at Hammond, Ind., for every power customer and prospective customer on the company's books. It was the endeavor in designing these cards to provide space on them for all the data which would be of actual service to the sales department in any situation which might arise. In speaking of the form of card used, W. H. Crawford, the company's new-business manager, said that while at first glance it might be condemned by some as going too far with details, experience at Hammond had shown that this form is thoroughly practical.

The data on cost of construction and distance from existing line often prove useful. Also, the data on the form of contract and the size and character of the load taken, together with the billing records, are often useful in answering a customer's comment that the bill for a certain month was too high. The back of the card gives a list of motors installed and machines driven, with an entry for the average cost per month for installed horsepower.

Date entered

Name ..... Location .....
Official in authority ..... Business .....
Date Signed ..... Service Desired ..... Service Promised .....
Present Power ..... Term of Contract .....
Transformers Required ..... Meters Required .....
Work No. ..... Issued ..... Work Completed .....
Cost of Construction ..... Distance from Existing Line .....
Total Cost of Installation ..... Hours of Service .....
Form of Contract ..... Total K. W. Connected .....
Load Factor .....

MONTH	K.W.Hrs. Power	Power Bill	K.W.Hrs. Light	Light Bill	Total Bill	K.W.Hrs. Power	Power Bill	K.W.Hrs. Light	Light Bill	Total Bill
JAN.										
FEB.										
MAR.										
APR.										
MAY										
JUNE										
JULY										
AUG.										
SEPT.										
OCT.										
NOV.										
DEC.										
Total										

Average Rate: Power ..... Light ..... Total .....

Complete data on its power customers are kept by the Northern Indiana Gas & Electric Company of Hammond, Ind. At the end of the year this card tells the story, month by month

An Electric Range and a Picnic

It sometimes pays to place goods before the public without seeming to try to do so. A California electrical dealer heard of a Sunday school picnic and offered the use of an electric range for the preparation of coffee. A salesman was on hand to explain the range to the large group of interested people who made inquiries about it. Needless to add, the plan paid well.

The Bank Lobby as an Electrical Display Room

For some months past the First National Bank of Syracuse, N. Y., has used its lobby as an exhibit space for locally-made electrical goods, giving a week at a time to each company that cared to make use of the privilege.

During a recent fortnight this idea was extended to the point of putting on an electrical show in the bank's lobby. A six-room home was fitted up completely with electrical fixtures and appliances, nineteen local firms being represented in the exhibit. The spirit of co-operation which marked the staging of the show was due in no small degree to the efforts of the bank in helping to make the exhibit possible.

A Lesson in Lighthouse-keeping

"The Light House" is the Oregon Power Company's name for the shop here pictured, and the window display

The flashing tungsten-lamped lighthouse and the kerosene lamp abandoned on the rocks in this window leave little to the imagination. "Good light saves sight."

shown was designed to harmonize with the idea.

Flashes of red and white from the lighthouse were produced by means of a revolving slotted cylinder, which was an adaptation of a General Electric revolving lamp shade and was operated by the heat of the lamp.

Starting a Mailing List

While most electrical-store managers will agree that a mailing list of live prospects is a fine thing to have, the question of how to get such a list without collecting a large number of useless names presents a problem that looms sufficiently large to scare some of them away from the idea.

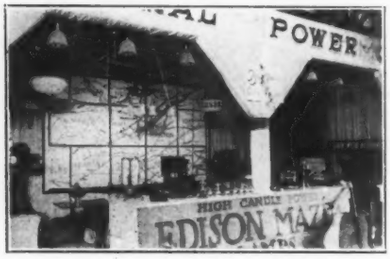
A Western dealer has obtained good results by using the telephone directory as a basis for his list. To each phone user he sent a card which was not stamped, and on which was a list of questions which the prospect was asked to answer. Such questions as

"What do you regard as the most useful domestic electrical appliance?" and "What is the smallest annual income that you consider sufficient to warrant the purchase of complete electrical equipment in the home?" were included. To each person who took the trouble to stamp and return the card properly filled out the store mailed a credit slip good for $1 on the purchase of certain apparatus.

The people who sent in cards proved to be excellent prospects, and the campaign paid well.

Electrical Geography Attracts Interest in Central Station Booth

A large map of its territory on which thirty-five towns were marked with electric lights was an interest-



Thirty-five towns were located with electric lights on the territorial map on display in this booth.

drawing feature of the Grand Island (Neb.) Central Power Company's booth at a recent fair in Hall County. The company also had the usual appliances on display and sold many of the smaller devices during the show.

Selling Flood-Lamps to Auto Agencies

The motor car dealer is quick to see the value of improvements in his salesroom. Where an agency has a window fronting on a busy street an excellent effect may be obtained by illuminating a machine with concealed flood-lamps.

Such a plan is being operated by the New York City branch of the Willys-Overland Company. Four flood-lamps have been mounted over the main doorway of the firm's salesfloor. The beams are directed upon the "star" position on the floor, and when the car occupying that location is finished in a light color a very striking effect is obtained.

Disposing of Traded-In Second Hand Plant Equipment

The central station's problem of disposing of used machinery acquired through the replacement of private plants by central-station service is one that has caused no little study. A Western company meets the difficulty by inclosing in every letter going to a point outside of its State a stuffer which lists the second-hand machinery in stock and calls attention to the attractive prices at which the various units may be purchased.

"We make lists of second-hand motors, valves, flanges, pulleys, belting, etc., so that if it is possible to use any of these second-hand items the heads of departments will have their lists handy when the requisition comes through."

Rental Charges Canceled upon Purchase of Motor

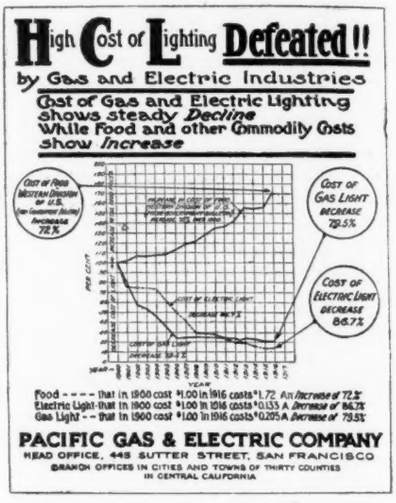
In order to encourage central stations to install motors temporarily for customers interested in testing central station service, the Gregory Electric Company, of Chicago, Ill., offers to cancel the first month's rental charges in case a sale is effected within thirty days from date of shipment. The company makes a business of renting electrical machinery, and the thirty days' trial plan helps the central station salesman to start the habit of electric service with his customers.

Getting Bills to the Purchaser Ahead of the Goods

"One of the tips I got from a salesman," said the district manager of a jobbing supply house, "is the value of sending out bills to our dealer customers ahead of the goods. This salesman called on one of our out-of-town dealers one morning and found boxes of our stuff half unpacked on the floor. The bills hadn't arrived and they had to leave the stuff around until they could check them up. However," he added, meaningly, "they've never had to do it since!"

Comparing Rising Living Costs with Dropping Price of Electric Light

That electricity has decreased steadily in cost in the face of the rising prices of other commodities is a fact that is being graphically demonstrated by the Pacific Gas & Electric Company in its San Francisco newspaper



Here is graphical proof that one of the main necessities has actually decreased in cost during the last few years.

advertising. The illustration shows one ad of this company in which average food prices for the western division of the United States are compared with the price of electric light for a period of sixteen years. This ad is one of a series planned by the company to bring out the economy of electric service.

Getting the Showroom Used

By J. S. JORDAN

In any electric shop it is important to get people to use the reception and showrooms. We try to find reasons to bring them into our shop and establish an "open-house" atmosphere about the place. We invite commercial and social organizations to hold ticket sales there. Then we have children's visiting days on which the school children are asked to come and see electric appliances and toy ranges.

STORE EQUIPMENT AND STORE METHODS

How to Plan and Equip Your Store —Systems Used in Successful Merchandising

Making Cost Keeping Easier

In order to simplify its cost keeping methods the Foster-Raetz Electric Company of Rochester, Minn., uses tags and stock cards on its material.

When fixtures are received in the shop they are tagged with the manufacturer's name, his number, style, finish and the cost in code, with freight and handling added. They are then placed in bins with the wrapping left intact to prevent soiling. On the bin is placed a stock card on which all the above information is noted. Of the two columns supplied on this card, one is used for dates and quantities received, and the other for similar notes on withdrawals. Thus stock records can be kept up to date at all times with a minimum of effort.

In taking a fixture from stock for making up, a tag like the one illustrated is attached to it and at the same time a cost ticket is made up

This tag attached to fixtures makes it easy to keep records up to date

and filed under a "style" classification, as for example, "Pendant-2 Light." The simplest way is always our choice, and we keep our records up to date by making the process easy.

Boosting Electricity with a Rubber Stamp

By C. E. DAY

North Coast Power Company, Kalama, Wash.

We have had a rubber stamp made up which reads:

"Cook, Wash, Iron, Sew and Clean House by Wire."

We use this stamp on everything that leaves our mailing department, and have traced many different sales to our having stamped this little message on the backs of our envelops.

For example, a letter was mailed from this office to a government official at Washington, D. C., who had been married recently. His co-workers were anxious to find something useful and appropriate for a wedding gift. One of his friends happened to see the back of the envelop with its red stamp and the purchase of an electric stove was the result.

Our stamp helped someone else sell something electrical — and someone else's stamp would help us in the same way.

Letting Goods Sell Themselves

The value of the display window is strikingly shown by a recent experience of the Brush Electric Company of Galveston, Tex. A window demonstration of daylight lamps was arranged, but as the sales force was working upon another appliance no advertising or soliciting was done in connection with the display. At the end of five days it was found that the window, unassisted by other sales effort, had sold over $50 worth of "daylight" lamps.

Small Colored Lamps for Table Decoration

"Color is always attractive," said a New York electrical dealer the other day when asked about his display of red, green and blue lamps. "I was overstocked with small-wattage lamps, and I had a few dozens of them tinted and displayed them here as you have noticed. We have sold quantities of them for table and party decorations. The average customer does not seem to know that colored lamps can be purchased, and as soon as our display here is seen it prompts questions. It is surprising to me that more stores have not made a specialty of featuring colored lamps."

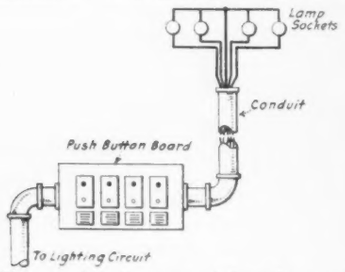
Utilizing a Door for Appliance Displays

T. J. Daly, an electrical contractor with a second-floor office and showroom at 1376 Massachusetts Avenue, Cambridge, needs no introduction as a live-wire after you glance at the accompanying picture. The main entrance to Mr. Daly's establishment fronts on Harvard Square, one of the most important business centers of the University City, and in order to get the benefits of a "ground-floor" display space, Mr. Daly recently installed an appliance cabinet behind one half of the door. The cabinet contains several adjustable plate glass shelves on which are shown portable lamps, wiring material, flashlights, etc. The cabinet is supported at the bottom by four 0.5-in. pipe standards screwed into the floor, angle bracing about half-way up the sides tying it against the door frame. The interior is surfaced with white-enamel paint, a 100-watt, nitrogen-filled lamp in a Wheeler mirror reflector being located at the top.

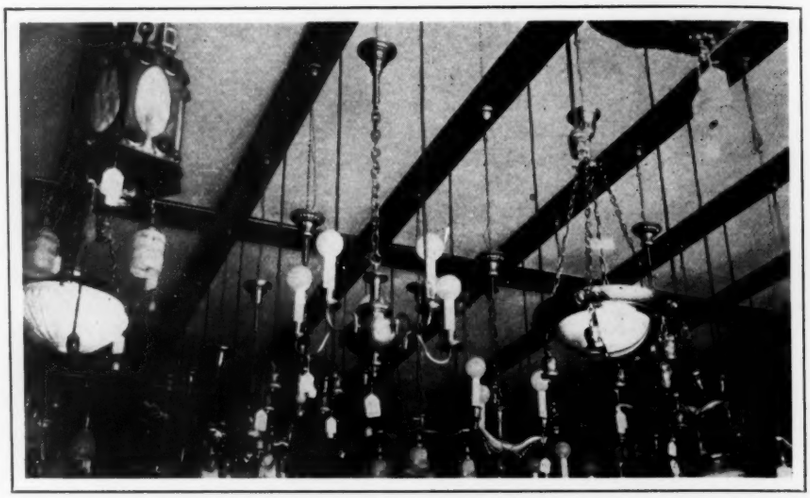
By installing a cabinet back of the front door leading to his upstairs store, this dealer gets display room on the street level.

Tempting the Customer's Interest

An electrical dealer at Johnstown, Pa., uses a set of push buttons wired to different types of lamps to interest customers. Conveniently located on the counter is a push-button board with each button connected with a lamp mounted near by. Under each button is a card on which is printed a description of the lamp which the button controls. When the customer is waiting for his change he tries the different types of lamps and learns the use for which each is intended.



These push buttons mounted on the counter control various lamps and permit the customer to try their effect for himself.



A flexible and convenient suspension for display fixtures is afforded by using chains in connection with stub ceiling canopies

Chain Suspension of Fixtures on Display

In the salesroom of the W. D. Crandall Company at Jackson, Mich., fixtures are hung by chains from stub ceiling canopies with ⅛-in. end loops, which are installed at regular intervals on the beamed-ceiling-effect paneling. The chain suspension proves more flexible than to bring the ⅛-in. gas pipe down to the proper height, and it also saves frequent cutting of the pipe for different fixtures. The beamed ceiling is built so that the panelboard is dropped down 1 in. from the ceiling, to give space for the ½-in. conduit and outlet boxes. Pendant type switches for each fixture are suspended from the beam halfway between canopies, reinforced silk cord and brown porcelain push switches being employed for this purpose.

H. C. Cornell, manager of the fixture and appliance department, attributes considerable advantage in selling this individual control of the lamps in the fixtures. If only two or three fixtures are lighted at a time, and finally only the one the customer likes best, he can see just how the individual unit is going to light up the surroundings in his home, whereas with a large number lighted at once, as is necessary with group control, the effect may be confusing to the customer and he cannot decide which one he wants. Mr. Cornell makes a practice of lighting only one fixture at a time, and this one is then the only light in the room. He says the cost of the individual control pays for itself many times over in promptness of sales.

Helping Customers with a Sample Board

Many a customer has need of some electrical fitting, but hesitates to display his ignorance of its trade name by asking for the article in general terms. In order to help such patrons a New York City dealer has mounted a sample board in his shop on which are displayed all types of wiring fittings with their trade names. Here a customer may spy the "what-you-call-it" that he needs, and, finding its official cognomen, ask for it with the air of an expert.

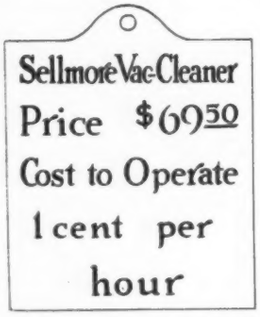
Keeping the Nickel-Plated Store Stock Shining

In even the best made showcase almost any appliance will in time lose its high polish despite weekly wiping with a soft cloth. To keep his nickel-plated and copper showcase samples at their very best one Virginia dealer, when a sale is made, removes from the showcase the appliance selected by the customer, packs it in an original box for delivery to him, and puts a new article on exhibit in its place. This plan helps keep the store-stock bright and shining, declares the store manager, besides insuring that the customer receives the appliance he selected from the showcase shelf.

Putting the Cost-to-Run on the Price Tag

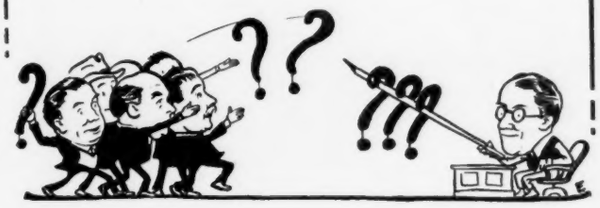
By KENNETH RAGDE

We believe in putting operating costs in cents per hour on our price tags. Often when a salesperson is temporarily occupied a customer will look over our entire line of appliances to see how much each costs to run. It attracts interest and gives the patron valuable information.



The cost-to-run is as interesting to the customer as the cost-to-buy

QUESTIONS AND ANSWERS
from
Our Readers



Should Outside Contractors Be Called In?

Here comes another question from a New England contractor that is particularly timely in view of the coming "Wire-Your-Home-Time" campaign. This man writes:

Has the central station any right to call in out-of-town contractors to compete with local men on wiring jobs?—E. H. G.

How do **you** look at this? What has been **your** experience? Write to us and give "E. H. G." his answer as you see it.

How Many Salesmen Do You Need?

In a recent issue we published a question from "M. E. B." briefly as follows:

What should be the ratio of central station salesmen to population served? How many calls per day should a man make in a residence district? How often should a customer be called upon?

This inquiry has been answered in detail by Arthur Huntington, manager of the commercial department of the Iowa Railway and Light Company, a company operating in some thirty-six communities in Iowa. Mr. Huntington writes from Cedar Rapids:

"This company is serving about 100,000 people and has four salesmen who have been regularly on the payroll, two of them the entire year and two since March 1. I find that the capacity of salesmen to get over a territory is quite a variable quantity, and of these salesmen I will say that two of them are not capable of handling more than 10,000 people in a given territory, while our best salesman is able to most effectually take care of about 40,000 people.

"The number of calls a salesman is able to take care of depends largely on the man and somewhat on the class of people he is calling on. I have two salesmen, each of whom has turned in more than 1000 contracts since March 1, 1916, for old house wiring and one has made three times as many calls as the other. In analyzing I find that one man has averaged twenty-eight contracts per week, whereas the other has averaged a little better than twenty-seven; whereas the man that has made a record of twenty-eight contracts a week is capable, physically, of making three times as many calls as the other man and his records show that he has kept up about that percentage of calls per day in comparison with the man that has made twenty-seven contracts. The writer has developed five different salesmen who have been able to systematically turn in 1000 contracts a year. All of the five are men who have worked exclusively on the house-to-house plan, and not one of the five could be drawn off of his chosen route by any alluring prospect.

"We are serving about 90,000 people located in some thirty-six towns and cities and it is our policy to have the salesmen get the prospects when they come to them. I find that a man who solicits in this way is about three times as efficient as the same man who spends his time in chasing prospects. I might add that in checking over these high-grade solicitors I find that nearly 60 per cent of the contracts are closed up after supper. The main difference between the two men above referred to is the fact that the man who has made the fewer number of calls closed 80 per cent of his contracts on the first call, whereas, the man who has made twenty-eight contracts averages two calls per contract. It seems to be the tendency of young salesmen to run over contracts that should be closed on the first call."

In the territory covered by this Iowa company there is one city of 40,667, one of 16,065, one of 12,253, two about 5000 and six over 1000 population, the balance being small villages. From this can be deduced the ratio of salesmen to population in a territory of this kind.

What Should Be Charged to Overhead?

Here is a question that we published last month:

What is the proper percentage to be charged to overhead on ordinary house-wiring jobs in an average size city?—W. H. M.

We have received a letter from a Minnesota contractor that seems to answer this. He says: "Now from our experience in the contracting business, we do not believe that it is possible for any electrical contractor doing a general contracting and repair business to conduct his business on less than an overhead expense of 15 per cent. The average overhead expense will run to approximately 22 per cent. There may be a few contractors in the United States who confine their business to large contracts and who make a point of not running a shop or store, who do really conduct their business on such a basis at 15 per cent overhead. This, we believe, would be the minimum overhead that may be attained in the electrical contracting business.

"The National Electrical Contractors' Association a few years ago undertook to determine what the overhead expense of the electrical contracting business was, and it found the overhead expense running up as high as 40 to 50 per cent, and as I remember it none running any lower than 15 per cent. We know of an investigation that was made in our city some time ago and the average overhead expense of a number of the electrical contractors ran between 21 and 22 per cent."

Note—The value of this Question and Answers Department to you will be just what you make it. Write to us fully about the things you want to know, and when some other fellow asks you for a helping hand, take the trouble to reciprocate.—The Editors.

SALES HELPS FOR THE DEALER

What the Manufacturer Offers to Help You Get More Trade

Fore-Runners of the April Drive on Electric Sewing

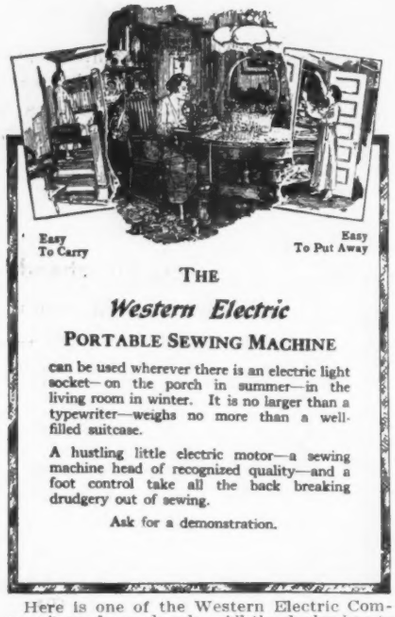
In swinging its searchlight over the horizon in quest of new and undeveloped opportunities, the electrical industry has spot-lighted the old family sewing machine. Manufacturer and jobber have prepared real helps for the retailers, and national advertising will give the dealer a running start in electrifying home sewing.

It is estimated by manufacturers that 20,000 sewing machines are now made daily in the United States. About one-half of this output has been exported, and of the machines used in our own country, a large proportion finds application in industrial work—shoemaking, bag stitching, tailoring, etc.

However, the quantity of machines sold to homes is a large one, and the life of a sewing machine is long. There are machines in use to-day that were built in 1882. So the opportunity to side-track the treadle and give right of way to the convenient little motor is a big one. Several electrical manufacturers are now making such motors and a number of sewing machine makers have standardized electric drive for their product. There are now sewing machines in approximately 75 per cent of the homes in America.

This applies in a fairly general way all over the country, and in order to size up his possibilities in this field all the local dealer has to do is to take three-quarters of the number of homes in his territory. In many of these homes he can sell a portable machine, the price of which compares favorably with that of the old ankle-acher of yesterday.

With the effective campaigns of dealer helps put on by the manufacturers, the dealer will find the curtain raised and the stage set for successfully promoting the electric stitch.



Here is one of the Western Electric Company's ready-made ads. All the dealer has to do is to specify size and insert his name.

After the dealer's name has been added, the Hamilton-Beach car cards are ready to do their missionary work.

It's a safe guess that Mrs. Maxwell opened this folder to read about the portable sewing machine.

Cut-outs, lantern slides, ads and car-cards work with the local store in placing "Sew-Motors"

NEW MERCHANDISE TO SELL AND WHERE TO BUY IT

Appliances, Socket Devices and Wiring Supplies Which Manufacturers and Jobbers Are Putting on the Market

Luminous Compound Containing Radium

A luminous compound containing radium has been developed and placed on the market by the Cold Light Manufacturing Company of Denver, Colo. This compound is sold in several forms and made in four different grades, namely, A, B, C and D, the latter containing the greatest amount of radium and thus giving the greatest degree of luminosity. In powder form the compound is of about the same fineness as ordinary talcum powder, and is nearly as white. It is sold on the gram basis (metric system) and is delivered in bottles. This powder may be mixed with adhesives or varnishes and used as a paint on dials or any other surfaces. The compound is also furnished in flexible sheets which can be cut and shaped as desired, and can be applied to uneven or broken surfaces. This form can be used in making self-contained brass-backed buttons to glue on electric switches already installed and for manufacturers to fit into the hard rubber portions of new switch buttons, also as dots and bars for the faces and hands of clocks. The enamel is said to be waterproof and immune to damage from vibration. It may be applied to watch dials and indicating devices of all sorts.

Sewing-Machine Motor Out of Operator's Way

"Sew-Motor," a motor that can be readily attached to any make of stationary or drop-head sewing machine, new or old, with the exception of a few obsolete models, is made by the Westinghouse Electric & Manufacturing Company. When not in use, the motor, if mounted on a stationary-head machine, can be pushed back out of the way and

Fig. 1—Clamping bolt for holding motor

the cover put on. If used on modern types of drop-head machines it can be dropped with the head. When desired, however, the motor can be removed readily by loosening one thumb screw, as it is light and portable. The complete outfit, which weighs only 7 lb., consists of a small motor which operates on either alternating or direct-current energy, a speed regulator with chain for connecting with treadle, 10 ft. of cord and plug and a round leather belt.

Being made of pressed steel, the regulator is light and substantial. There are two coils in series with the motor. When there is no pressure on the sewing machine treadle the circuit is open. With slight pressure on the treadle, a contact is made, both coils being in series, and as a greater pressure is applied the resistance is cut out in about 100 steps. Thus by varying the pressure, one stitch, or several hundred stitches a minute can be taken. When it is desired to wind the bobbin, the belt is slipped off the hand-wheel and on to the bobbin wheel. A helical spring tends

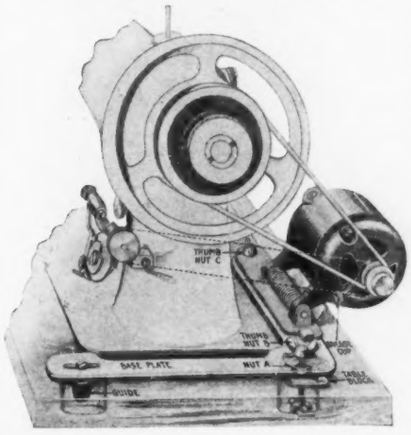


Fig. 2—Position of motor on sewing machine

to force the motor away from the head of the machine and thus always keeps the belt tightened. When folding up the machine it is only necessary to loosen the belt, disconnect the plug, and swing the motor around under the head. Two hooks are furnished for attaching the service conductors to the back of the machine. Felt pads underneath the base prevent the motor from scratching the machine.

Electricians' Bits

The W. A. Ives Manufacturing Company of Wallingford, Conn., has developed a bit made especially for electricians and of such material that it is able to bore in fire doors covered with metal without harming the bit. These bits bore in any kind of wood without forcing, progressing at the rate of 1 in. with every ten turns. The bit is made in three sizes only, 10/16, 11/16 in. and 12/16 in. diameter. The bits should not be used in boring machines nor where the wood is very hard, as they bore too rapidly.

Lightweight Calculating Machine

Shown in the accompanying illustration is a light-weight calculating machine that is adapted to estimating, accounting, billing and other calculations made by con-

Light and compact calculating machine.

tractors, dealers and jobbers. This machine, known as the "Marchant Pony," is made in two sizes, one weighing 12 lb. and the other 13 lb. One has thirteen digit places on the product or quotient dial, the other eighteen places. The machine has been developed by the Marchant Calculating Machine Company of Emeryville, Oakland, Cal.

Oil Lamp Converter

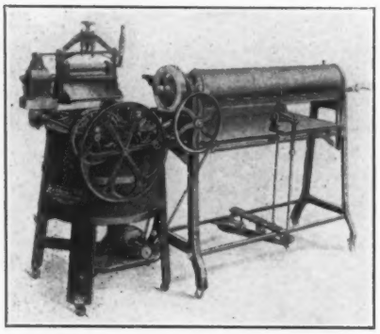
The Plume & Atwood Manufacturing Company of Waterbury, Conn., is marketing a device designed to assist in the easy conversion of an oil lamp into an electric lamp. As shown in the accompanying illustration, the device consists of a threaded collar which will fit into the burner socket of a No. 3 oil lamp, a standard electric lamp socket equipped with either a pull chain or a key, and an ornamental brass holder. Six feet of

Oil lamp converter with pull chain socket

silk-covered cord and a separable attachment plug is also furnished with each converter. Adapters may also be secured, by means of which these converters can be used in sizes of lamps other than No. 3.

Motor-Driven Ironing Machine

The Horton Manufacturing Company of Fort Wayne, Ind., has placed on the market a motor-driven, gas-heated, house-



Household type of ironing machine

hold-type ironing machine, which provides an ironing surface 42 in. wide, making the machine capable of handling large pieces as well as small ones. The entire machine occupies a floor space about 5 ft. long by 2 ft. wide and stands about 4 ft., over all, above the floor. The chief features claimed for the machine are that it is noiseless; it is rapid in operation; its ironing surface retains heat; it has a wide space between the ironing shoe and the roll to prevent burning the goods; it is operated by a foot lever; and the tension regulator is conveniently located.

Light-Weight Electrically-Heated Faucet

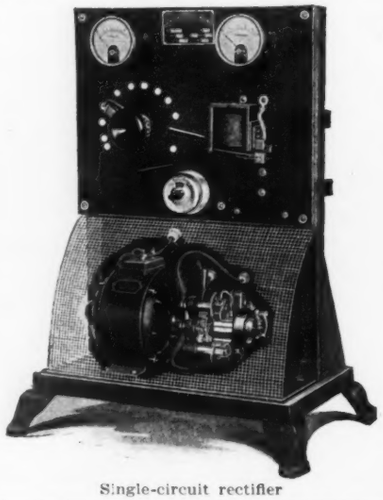
A water heater that can be easily attached to any plumbing, that takes its energy from the most convenient lamp socket, and that is easily operated, is shown in the accompanying illustration. The apparatus is the product of the Thermo Electric Faucet Company, 74

Faucet that furnishes hot water in three seconds.

New Montgomery Street, San Francisco, Cal. The heating element is always submerged so that it cannot be exposed to a higher temperature than that of boiling water, and is automatically energized by the same motion that turns on the water. Since cold water may be drawn from the faucet without heating, it is not necessary to have a faucet especially for cold water. The heater, it is claimed, supplies hot water in three seconds, furnishing from 1 pt. to 1 qt. a minute depending upon the temperature required and thus may be used for any purpose except bath or laundry service. Weighing only a little more than 1 lb., the heater can be carried by travelers and tourists.

A Commutator Rectifier

The rectifier shown in the accompanying illustration is designed for the charging of small storage batteries, such as used with automobile ignition, lighting and starting sets. The single-circuit type is a self-contained charging plant that will charge from one to five batteries (or up to a total of 15 cells). By keeping the rectifier running twenty-four hours a day and taking out each battery as soon as fully charged, on an average a total of thirteen 3-cell batteries, it is



Single-circuit rectifier

claimed, can be given a full charge in twenty-four hours, allowing for the average amount of residual charge. The rotating commutator principle is employed. Current from the alternating-current supply is brought to two terminals at the back of the switchboard. From these terminals the current passes through the line switch to a special induction-type motor. On the extended shaft of this motor are two collector rings and beyond them a commutator. The synchronous motor is of such design that no further attention need be given in starting than to simply close the line switch, at which time the motor will start readily and fall into synchronism, remaining so, it is said, even at a great reduction in voltage. The motor has no carbon brushes to keep in renewal.

Although the type shown here is of small capacity and low voltage to charge the class of batteries mentioned, larger sizes of the machines are made by the Stahl Rectifier Company, 538 South Clark Street, Chicago, Ill.

Electric Heating Pad

The pad shown in the accompanying illustration is composed of coils of asbestos-covered wire and equipped with two thermostats which control the heat and keep it at an even temperature. It is covered with eiderdown and is flexible, enabling it to be applied to any part of

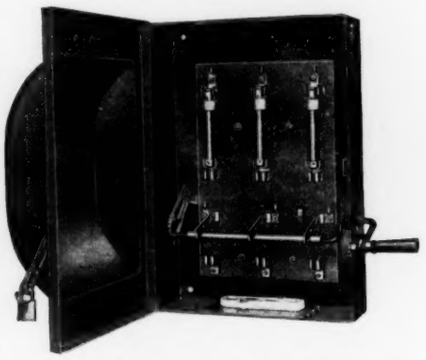
Eiderdown covered heating pad

the body. The pad is 9 in. by 12 in., equipped with 10 ft. of cord and a Hubbell attachment plug. The Standard Electrical Appliance Company of Beverly, N. J., is the maker of this appliance.

Motor Starting Switches

Steel inclosed motor starting switches designed for small three-phase motors have been developed by the Detroit Fuse & Manufacturing Company of Detroit, Mich. The switches are of the double-throw, knife-blade type with the running side arranged for fuses. A steel latch inside the cabinet prevents throwing the switch from off to running position without first being thrown into the starting position. This latch also makes necessary a quick change from starting to running position.

The switch is equipped with a lock-off device which prevents carelessness in closing the switch while someone is working on the line or apparatus controlled by the switch. This motor starting de-



Starting switch for small three-phase motors

vice is furnished with star-delta starting connections, and when so used a separate main line switch must be installed ahead of the starting switch in accordance with the National Electrical Code.

Combination Table Stove

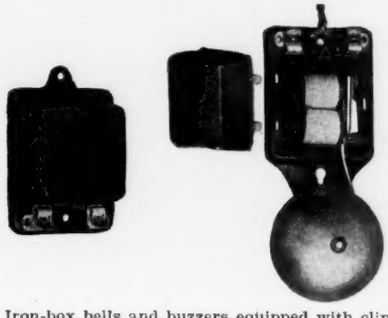
The combination electric table stove shown in the accompanying illustration consists of a steel stand and a rectangular deep water pan with cover, all nickel plated finish. The heater consists of two steel plates welded together and inclosing between them the heating element. The water pan and heater are provided with ebonized wooden handles and the latter contains the terminals of the heating element. Additional accessories furnished with this stove are a toasting screen and a broiling screen. The device is equipped with 6 ft. of flexible connection cord and a feed-through three-heat switch. A tray upon which to rest the stove during use is also included.

Table stove that can be immersed in water for cleaning

This appliance affords a very complete outfit as a combination frying pan, griddle or hot plate, and the three-heat feed-through switch not only gives control of the temperature, but assists in preventing the use of unnecessary current. Another noteworthy feature to which attention is called is that the entire device can be immersed in water for cleaning. The Cutler-Hammer Company of Milwaukee, Wis., is the maker of this stove.

Iron-Box Bells with Clip Connectors

Iron-box bells and buzzers, manufactured by Edwards & Company, Inc., 140th and Exterior Streets, New York City, are now being furnished with Fahnestock clip connectors. They are made in three classes: One equipped with a locking adjustment screw for regulating the separation of the contacts; another does not have this adjustment, and a third is the same as the second except that the resistance is 5 ohms instead of 3. The gongs on these bells are riveted to the support to prevent removal or turning. The hammer rod, ball and armature are made in one piece. It is claimed that there is no space in which foreign matter will collect and interfere with operation because the armature pivot is near the point where the hammer rod passes through the cover. Thus there is practically no motion, allowing the opening in the cover to be almost the same size as the diameter of the hammer rod.



Iron-box bells and buzzers equipped with clip connectors

Motor-Driven Propeller Fans

Propeller fans equipped with interchangeable round-frame motors are being manufactured by the Batterman Truitt Company of Chicago. The fans have an outer retaining ring, to which is attached three forged steel arms supporting the motor ring. The motor is mounted within the motor ring and is held rigid by three cap screws. The wheel consists of a bored and reamed hub with steel spokes securely riveted thereto. The outer rim is oxyacetylene welded and riveted to the blades and spokes. The motor bearings, which are made of cast bronze alloy, have large wearing surfaces, and are self-aligning and interchangeable. Speed regulators are furnished with all direct-current fans 18 in. in diameter and larger, giving approximately 50 per cent speed reduction below normal by intermediate steps. These fans are equipped with peerless motors.

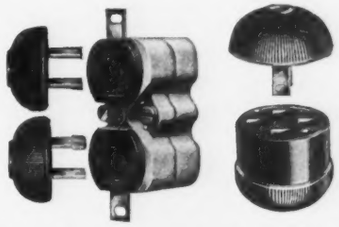
Propeller fans equipped with interchangeable round-frame motors

Closed Conduit Bushing

A closed pressed steel conduit bushing that has a protective top securely fastened into it is being offered to the trade by the Detroit Closed Bushing Company, Inc., 901 Kresge Building, Detroit, Mich. This top can be removed by the wireman with a screw driver or pliers. Attention is called to the fact that this protective feature leaves nothing to the memory of the workman. He must bush the conduit to complete the conduit installation, so that when the bushing is in place, the end of the conduit is also closed. The bushing is waterproof, therefore also a protection against concrete and the entrance of foreign material of any sort.

Standard Plugs and Receptacles

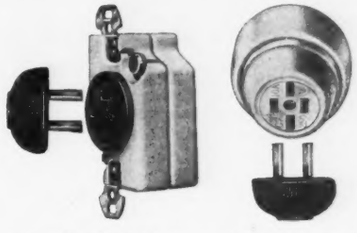
Six electrical manufacturers have agreed on making standard plugs and receptacles, the attaching caps of which can be connected to the bodies of any of the several makes. In the accompanying illustrations are shown the C-H No. 7711 standard single flush receptacle, C-H No. 7721 duplex flush receptacle and C-H No. 7717 surface receptacle, all recently brought out by the Cutler-Hammer Manufacturing Company of Milwaukee. The single and duplex flush receptacles are made of white glazed porcelain and rated at 660 watts, 250 volts. The portions of the receptacles exposed through the apertures in the flush plates are enameled black, making a surface which does not show soil.



Left—Duplex receptacle with standard attaching cap and polarity cap below. Right—Separable motor attachment plug and cap with standard parallel blades

Each outlet is provided with four slots with protected contacts—two parallel to receive the blades of the standard parallel blade cap or polarity cap—and two in tandem to receive the blades of the tandem-blade cap. The duplex receptacle is the same size as the single receptacle, but has double the number of outlets, thus allowing the attachment of two electrical appliances from one outlet box. Large terminal screws are provided, one pair taking care of both receptacles. Grooves in the side of the porcelain body accommodate the conductors and prevent crowding in the outlet box.

The surface receptacle like the flush receptacles is of glazed porcelain with concealed contacts and slots arranged to accommodate standard attaching caps. It is designed for concealed wiring and has the same rating as the other receptacles.

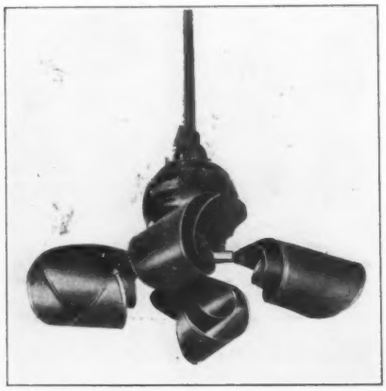


Left—Single flush receptacle with standard attaching cap. Right—Surface receptacle and standard attaching cap

A polarity cap with parallel blades, one enlarged to fit a correspondingly enlarged slot of the standard plugs and receptacles, has also recently been placed on the market by this company.

Ceiling Fan Blade

The four-leaf-clover fan blade shown in the accompanying illustration is a development in ceiling fan blades for circulating air in crowded rooms as restaurants and the like. These blades are made of thin sheet metal, suitably decorated, and equipped with standard castings, so as to be interchangeable with the blades of any of the standard types of fan motors. The action of these fan blades is the reverse of that of ordinary paddle designs. Instead of blowing down the hot air from the upper portions of the room on the head of the occupants, causing disagreeable drafts, annoyance from smoke, etc., fresh cool air from the lower part of the room is drawn up and distributed horizontally along the plane of the blades. This action, it is said, greatly increases cooling effects through improved circulation. It is also claimed that because of the principle employed in the design of these blades, the amount of air handled is greater than that handled by any of the ordinary paddle blades, while the power consumption at the same speed is less. These fan blades are a product of the Roth Wind Power Ventilator and Fan Company, 18 East Forty-first Street, New York City.



Four-leaf-clover shaped ceiling fan blade

Motor for Winding Talking Machines

To secure mechanical operation in a talking machine in as nearly as possible the same manner as that obtained by hand operation, and to assure even speed, the device shown in the accompanying illustration and known as the "Motrola" is utilized to wind up the spring motor of the talking machine. It consists of a very small motor, a cut-out switch actuated by a spring and a cord and plug for connection to an ordinary electric light socket. It is connected to the spring motor of the talking machine by worm and gear, with a crank shaft designed to take the place of the handle with which all hand operated machines are equipped. The machine, it is claimed, keeps the spring motor wound at all times without any attention whatever when once mounted and connected to the circuit, in the following manner: A spring in the motor housing operates against the pressure of the spring motor in the talking machine. When the spring motor runs down to a certain predetermined point the spring in the machine overcomes the pressure of the spring motor and trips a cut-out switch, automatically connecting the electric motor to the circuit. The motor then rotates the crank shaft, winding up the spring motor until it is almost fully wound, when the spring motor overcomes the spring in the electric motor and the cut-out switch automatically disconnects the Motrola from the circuit again. A button is provided, however, so that the actions of the motor may be controlled manually when desired, as for instance, when it is not desired to have the motor running during the playing of a selection.

Method of mounting motor for winding talking machine

In this case, by depressing the button before placing the record on the machine one can make certain that the spring is fully wound. The Jones Motrola is manufactured by the Westinghouse Electric & Manufacturing Company of East Pittsburgh, Pa., for the Jones Motrola, Inc., New York.

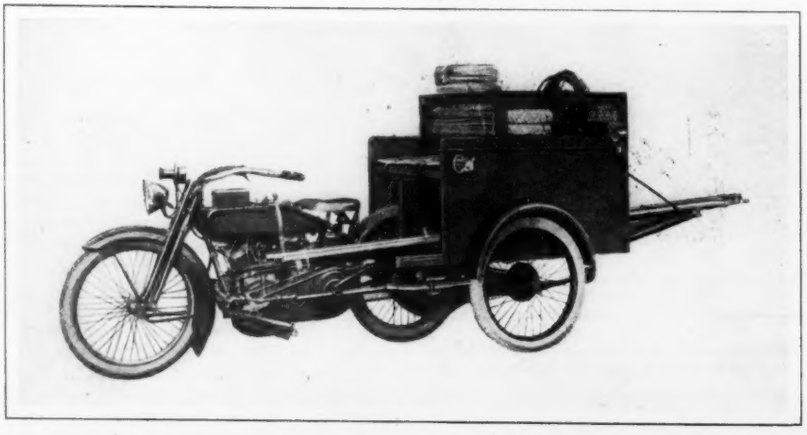
Socket Attachment for Oil Lamps

An arrangement for adapting any lamp having a common burner (either flat wick or central burner) to an electric lamp has been developed by Harvey Hubbell, Inc., of Bridgeport, Conn. The adapter makes it possible to use the lamp with oil at any time, as the attachment does not interfere with the wick. No tools are required to attach or detach the adapter. It is furnished with 7 ft. of cord and a new type porcelain attachment plug.

Adapter for oil lamps

Cycle-Type Delivery Car

In the accompanying illustration is shown a rear-car auto-cycle which is suitable for delivery purposes. The compartment doors open both at the front end and rear, so it is possible to carry conduit and other material considerably longer than the body of the car. With the standard type of car, the extension is provided with an open top, which will accommodate coils of wire, bundles of rope and other material. The seat immediately back of the motorcycle driver will accommodate two passengers so that a master electrician and helper can be taken to a repair job conveniently. This type of rear car is built for attachment to any standard make of motorcycle and is equipped with a brake. A top for protecting the motorcycle traveler is also furnished. This outfit is made by the Cygnet Rear Car Company, Buffalo.



A light delivery car that will carry electrician, helper and supplies

GOSSIP OF THE TRADE

15,000,000 Homes Still to Be Wired Up

There are 15,000,000 homes in the United States to-day which are yet to be wired for electric service. The comprehensive plans which the Society for Electrical Development is now bringing to completion, will probably result in decreasing this large number to a very considerable degree.

From April 1 to May 15, the efforts of the electrical industry will be concentrated upon "Wire-Your-Home-Time." The Society is offering $1,250 in prizes to salesmen who secure record numbers of house-wiring contracts, and has prepared a brief booklet of practical plans published especially for this campaign which gives sales ideas for letters, ads, folders, displays and demonstrations that can be at once transplanted into practical use by wiring contractors.

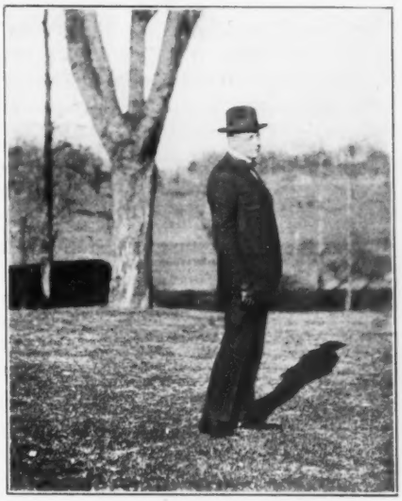
In connection with this campaign, the Society has collected some very interesting statistics concerning the market for house-wiring business. Of the 20,500,000 homes in the United States but 5,500,000 are wired for electric service to-day. It is estimated that each of the remaining 15,000,000 homes might be bringing in to the central station an average annual revenue of $18. If in addition to this an electric iron might be installed in each home, this income would be increased by $6.

It is estimated that 5,000,000 sockets remain empty and unused in spite of the fact that 110,000,000 incandescent lamps are now sold every year. To-day 1075 per cent more electric light is obtainable for the same money than twenty years ago. In 1907, the average lamp wattage was 53. In 1914, with higher candlepower, the wattage dropped to 48, while in 1915, the figure stood at 47.36. Of those homes which are now on the existing distribution lines of electric power companies only one in three is now wired for electric service.

With the interest of the people of the country aroused by systematic national publicity, with the entire electrical industry concentrated upon house wiring and with this fertile field upon which to work, it will be surprising indeed if the results of this campaign for better service and better light are not record-breakers.

Joe Guilfoyle, who formerly presided over the stores of the United Electric Light & Power Company, is now a sales specialist for the Western Electric Company, with headquarters at the company's New York City office.

Robert L. Jaynes, Tenth Past Jupiter of the Jovian Order, is one of the incorporators of the new venture known as the Jaynes Seed & Live Stock Company of Massaponax, Va. This company will engage in scientific farming on 710 acres of land located 6 miles south of Fredericksburg, Va.



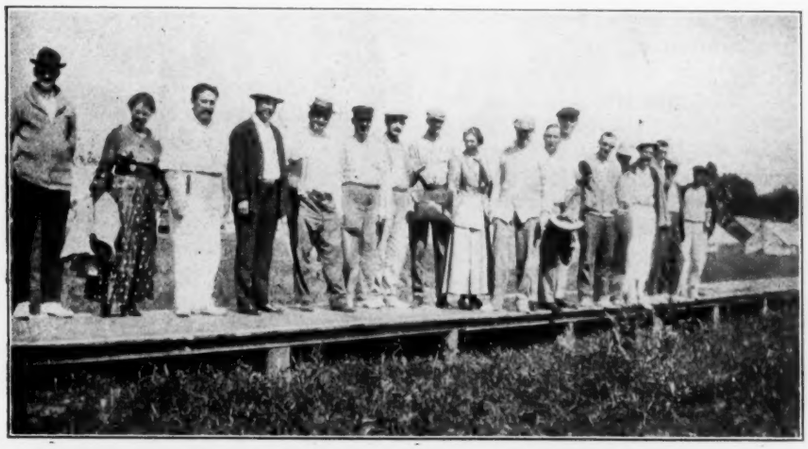
The sales manager of a company as big and busy as the Westinghouse Electric & Manufacturing Company has to learn to handle things with gloves. And here we see S. L. Nicholson starting out in the early morning all ready for the next thing.

Charlie Felker, who for fifteen years has been traveling the states of Iowa, Illinois and southern Wisconsin for the Central Electric Company, was recently brought into the house and made manager of country sales. Mr. Felker has been in the electrical business, as he puts it, "since the early days." To all doubters he exhibits his Jovian Potential, which is No. 116, to prove his point.

S. H. Stover, who handles electric supplies in Pittsburgh, Pa., now has his office at 705 May Building, instead of 518 Empire Building, where his business was formerly transacted.

C. W. Jones, secretary of the Trumbull Electric Manufacturing Company, has resigned that post after a continuous connection with the company of twelve years.

F. E. McKenna, local manager of the Oregon Power Company at Coquille, Ore., has been appointed a member of the Board of Directors of the Commercial Club of Coquille.



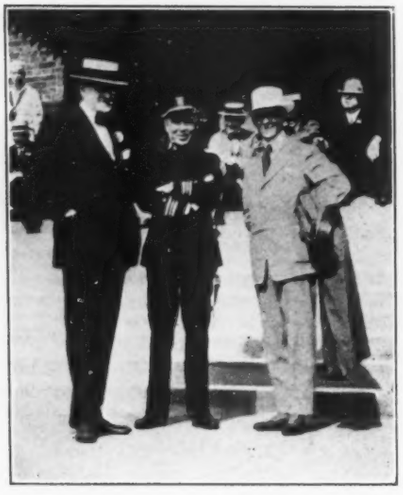
Notable display of youth and beauty caught unaware last fall at Association Island. (Photograph delayed by censor.) Among those present please find Messrs. Israel, Lloyd, Hale, Wallis, Beardsley, Becker and Gibbs and Miss Sheridan.

F. D. Fagan, who was formerly sales manager of the lamp department of the General Electric Company at San Francisco, Cal., is now district sales manager for the Pacific Coast division of the Edison Lamp Works.

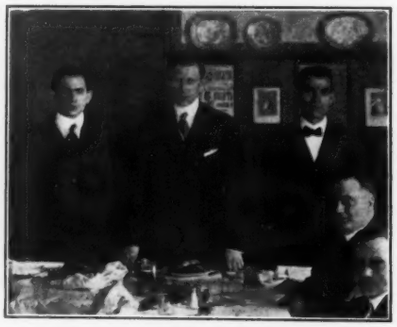
The Adams-Bagnall Electric Company's Chicago district territory has again been placed in charge of Van N. Marker, with headquarters in Machinery Hall, 549 West Washington Boulevard, Chicago. Mr. Marker was associated with the Chicago district office of the Adams-Bagnall Electric Company for approximately seven years, up to March, 1916.

J. E. Tucker, who recently retired as vice-president of the Greenwood Advertising Company (Western), has formed a new company under the name of the Tucker Electric Sign System for the purpose of designing, manufacturing and leasing electrical advertising signs and accessories. Mr. Tucker's new headquarters will be at 1112 West Sixteenth Street, Los Angeles, Cal.

The Westinghouse Electric & Manufacturing Company has announced a new industrial center for the company's interests to be established at Essington, near Philadelphia, Pa. The site, which embraces approximately 500 acres, has a one-mile frontage on the Delaware River. Large apparatus will be developed at the new center and the initial work will cost in the neighborhood of $6,000,000.



When Commandant Moffett entertained at the Great Lakes Naval Training Station, Doc Mott, president of the Chicago Electric Club, had a great time, and M. L. Eastman, director of the Commonwealth Edison Company's orchestra, enjoyed it to beat the band.



"Among those present" at the dinner of the Metropolitan Electrical Jobbers Association of New York were L. D. Bailey, C. P. La Shelle and Meyer Rutkin, vice-president, president and secretary, respectively, of the association.

Frank Glascox and **H. I. Scharr,** who have been doing a general electrical contracting business under the name of the H. I. Scharr Engineering Company, have dissolved partnership. Mr. Glascox will continue the business under the firm name of the Frank Glascox Electric Company.

The Colorado Convex Electric Sign Company, of Denver, Col., has under construction at its factory an electric sign which is asserted to be the largest west of the Mississippi River. The sign is 60 ft. wide by 55 ft. high, and with its steel superstructure will weigh 15 tons. Convex reflectors will be used and the total rating of the assembly will be 50,000 cp.

The United Electric Light & Power Company of New York City is now issuing its magazine under the new title of *United Service.* The new paper supersedes the *Electrologue* and the first issues display editorials, stories and pictures in an interesting manner.

A switch manufacturer who is now well known, worked for the old Thomson-Houston Company at the outset of his career, and did some of the very first arc-light wiring with the wire staples regularly supplied in those early days. One manager of a factory he wired told him he could not expect electricity to flow over a wire which was choked every few feet by a staple. Later, when on account of wet floors and numerous grounds the young wireman had to take down the conductors, the factory manager exclaimed, in self-satisfied glee: "I told you so. You are not as smart as you think you are! A little common knowledge of the science of electricity would help you some, young man."

C. F. Crowley has been appointed general manager for the William A. Corrao Electric Company, which is one of the leading electrical contracting firms in St. Louis.

Albert Uhl has been appointed sales engineer for Henry Newgard & Company, electrical contractors, Chicago. Mr. Uhl was formerly secretary and sales engineer for the Goodman Electrical Construction Company of that city.

L. T. R. Ward, formerly new-business assistant to the agent of the Public Service Electric Company in Trenton, N. J., has been transferred to Elizabeth where he will fill the chair which has been vacated by J. N. Adam.

G. A. Montgomery, general manager of the Lincoln (Neb.) Gas & Electric Light Company, reports that marked progress is being made in civic improvements in that city, and building operations during 1916 exceeded 1915 by 10 per cent, while the plans ahead for 1917 show advances over the corresponding period of last year.

J. N. Adam, formerly new-business assistant to the division agent of the Public Service Electric Company, Elizabeth, N. J., has been transferred to the Newark division where he will be new-business assistant to the agent. Under Mr. Adam's direction 1916 proved the banner year for power, electric signs, appliances and house-lighting sales at Elizabeth.

Harry Hobson of Dallas, Tex., believes in getting out-of-doors on occasions, and here's material evidence that his trampings are not unrewarded. At other times Harry, as everybody knows, is sales manager of the Southwest General Electric Company.

When T. P. Kindig plays, he chases little fish way up into little mountain lakes in Colorado—and this picture proves it. At other times he is the assistant commercial manager of the United Gas & Electric Engineering Corporation at 61 Broadway, New York.

Frederick Riebel, Jr., formerly district sales manager of the George Cutter Company of South Bend, Ind., has just been made general manager of the Commercial Electric Supply Company, 52 Congress Street, East, Detroit, Mich. Mr. Riebel, upon graduation from Purdue University, Lafayette, Ind., in 1904, entered the employ of the Westinghouse Electric & Manufacturing Company, remaining with this company until February, 1911, at which time he became manager of the electric power company at Bedford, Ind. In December, 1911, Mr. Riebel returned to the Westinghouse company, becoming manager of its Omaha, Neb, office, which position he retained until last January, when he took up his work with the George Cutter Company.

F. A. Snidel is secretary of the newly organized Trail (B. C.) Electric Club.

Gail Reed, manager of the Chicago Electric department of the Anderson Electric Car Company, has written a series of articles which are filled with timely, "high-explosive" material that can be used by any salesman of electrics. The articles are also of such a character that they could easily be used for publication in daily papers where electric pleasure cars are being pushed. Mr. Reed asks that anyone interested in securing copies of these articles address him at 2416 Michigan Avenue, Chicago.

H. E. Freeman, formerly vice-president of The American Trust & Savings Bank of Springfield, Ohio, has been appointed treasurer of the Robbins & Myers Company, Springfield, Ohio. When connected with The American Trust & Savings Bank, Mr. Freeman was also vice-president and treasurer of the Indianapolis Frog & Switch Company. W. J. Myers, who in addition to his duties as vice-president of the Robbins & Myers Company, had previously acted as treasurer, will now be relieved of the duties in connection with the latter position, so that he can give his entire time to his duties as vice-president.

Hartwell Jalonick, commercial manager of the Texas Power & Light Company, presented a paper on "Customer's Contracts" at a recent conference of the district managers and resident engineers of the company.

The Brooklyn Edison Company has entered into contracts to furnish power to the Chelsea Fiber Mills and the H. Batterman Dry Goods Store. A private plant is replaced in each case.

Announcement has been made that the business formerly conducted under the name of Tognarelli & Voigt Company will hereafter be known as the Voigt Company. The firm, which deals in composition lighting fixtures in Philadelphia, Pa., will continue under the management of Mr. Voigt.

S. C. G. Thomas believes in individual drive and keeps right after it work-days and Sundays, whether on the links or in Long Island City, where he is president of the New York & Queens Electric Light & Power Company.

In 1859 the "House of Andrae" occupied a blacksmith shop in Milwaukee, and in 1878 operated the first electrical installation recorded in that city. It was a bell circuit connecting the workshop with the residence of Julius Andrae. To-day the firm has a hustling electrical jobbing business, the nature of which may be judged from the smiles of its officers here pictured. The gentlemen on the bench are F. T. Andrae, secretary; J. C. Schmidtbauer, vice-president; Julius Andrae, president and founder; and H. P. Andrae, treasurer.

D. H. Braymer, who for the past two years has been engineering editor of the ELECTRICAL WORLD, has resigned to assume the editorship of the *Electrical Record.* Mr. Braymer succeeds George A. Wardlaw, who will engage in free lance literary work. Prior to his connection with the ELECTRICAL WORLD, Mr. Braymer was editor of *Electrical Engineering* of Atlanta, Ga., and of its predecessor, the *Southern Electrician.* He is a graduate of Cornell University with the degrees of A.B. and E.E., and spent some years with the Electrical Testing Laboratories and the Western Electric Company in New York City before engaging in editorial work. Mr. Braymer takes with him the best wishes of the publishing company from which he now severs his connections.

Here is Count Anton von Wachendorff massaging No. 8 "rubber covered" with a pair of gas pliers, as pictured in *Every Week*. From that authority we take it that tack hammers are being used for mounting fuse boxes this season, and the tool kit of the modish young wireman, we presume, is delicated scented.

Bill Mueller is sales representative for red-cedar poles with B. J. Carney & Company of Chicago.

W. T. Gilroy is now district manager of the Interstate Public Service Company at New Castle, Ind.

V. N. Friedman is now owner and manager of the Electrical Contracting Company of Sioux City, Iowa.

M. B. McDemott and **E. N. Holstrom** have been appointed sales engineers with the Wagner Electric Manufacturing Company at St. Louis.

F. H. Rosencrants, engineer of the Texas Power & Light Company, recently addressed the Dallas Electric Club and Jovian League on "Electrical Development on the Pacific Coast."

Harry C. Turnock has sold his interests in the Electric Construction & Sales Company, Cleveland, Ohio, with which he has been connected for a number of years as president. Mr. Turnock plans to move to Los Angeles, Cal., where he will organize a selling force to handle automobiles in southern California.

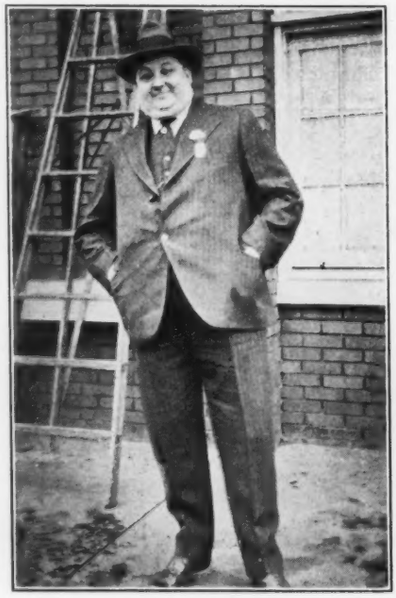
C. A. S. Howlett addressed the semi-monthly luncheon meeting of the Northern Jersey Jovians at Newark, N. J., on March 1, on the subject of salesmanship. The discussion was led by H. D. Heidrich, Statesman for New Jersey, and William Miller, Second Tribune for Newark.

H. M. Harris has been appointed commercial manager of the Harrisburg (Pa.) Light & Power Company to fill the vacancy caused by the resignation of P. H. Bailey. For the past year Mr. West has been with Westinghouse Church Kerr & Company, of New York.

F. L. Lucas has been elected president of the Toledo (Ohio) Electrical Club. H. R. Fowler is first vice-president, J. J. Duck second vice-president and F. G. Gunn secretary and treasurer. The Electrical Club was formed recently for the purpose of educating members of the Commerce Club of the same city as to the proper installation of electric wiring and apparatus.

J. O. Morris, sales manager of the Electric Supply & Equipment Company of Hartford, Conn., has been busy recently with the opening of a branch in Albany, N. Y. The new quarters provide 15,000 sq. ft. of floor space and a complete line of central station equipment, pole and pole-line hardware is carried in stock.

Arthur C. Cobb, for the past three years new-business manager of the Worcester Suburban Electric Company, Uxbridge, Mass., has been appointed commercial manager of the Commonwealth Electric Company, Summit (N. J.), Lakewood (N. J.) Electric Company, and Point Pleasant (N. J.) Electric Company.



One of the big men of the lamp industry—"Cudmore, the Convention kid"—that is, H. H. Cudmore of Cleveland and all convention cities.

A high position has been one of Anthony Sunderland's worthy aims in life. Not satisfied with the altitude afforded by the positions of cashier of the Danbury (Conn.) Gas & Electric Light Company and Mayor of his home city, he essays further heights in the cloud chasers of the U. S. Signal Corps.

The Alliance (Ohio) Gas & Power Company has ordered a carload of Hurley washing machines.

The Sub-Contractor's Lament

At the close of his address at the Washington State electrical contractors' convention, J. J. Agutter of Seattle read the following verses, including several original stanzas of his own composition, recounting the misadventures of the electrical contractor who enters his bid in the competition presided over by the general builder:

Said the Architect to the Builder,
With a large and mournful sigh,
"I'd like to give this job to you,
But, Holy Gee, you're high!"

"Oh, never mind," the Builder said,
"I'll take it, anyway;
I'll just cut off ten thousand bucks
And make the suckers pay."

The Subs came floating 'round the job,
And pruning knives let fly,
But all the Builder said to them
Was, "Holy Gee, you're high!"

He took their hide, he picked their bones,
And scraped each carcass dry,
They gave the money, brains and skill,
And *he* got all the pie.

"Ned Page has got you beat a mile,"
He told one sucker then,
And, with his usual winning smile,
Said, "Check it up again."

Ned took the hint, and back he came,
His countenance still beaming.
Thought he, "I'll prove I know the game
With price-dissecting scheming."

But when the Builder got that bid
He blew another sigh.
Said he, "I'd like to help you, kid,
"But Meacham's not so high."

"Just cut another hundred bucks,
And come around to-morrow."
The Sub agreed, and cut again,
To watch poor Meacham's sorrow.

So the Sub went to the Builder
On the morrow, all athrob,
"I'm sorry," said the latter.
"But Bill Evans got the job."